

GRADUATE STUDENT CELEBRATION

GRADUATE DEAN'S CITATIONS FOR ACADEMIC EXCELLENCE

Presented by the Office of Graduate Studies in collaboration with the Graduate Student Association

APRIL 19, 2013





Graduate Student Celebration April 19, 2013

Hager-Lubbers Exhibition Hall Charles W. Loosemore Auditorium

Presented by the Office of Graduate Studies 318C DeVos Center 616-331-7105 www.gvsu.edu/gs <u>gradstudies@gvsu.edu</u>

in collaboration with the Graduate Student Association (GSA)

Program

5:00 PM: Refreshments and Social Hour (Hager-Lubbers Exhibition Hall)

6:00-7:30 PM: Awards Presentation Ceremony (Loosemore Auditorium)

- Introduction: Austin Dean, GSA President
- Welcome: Dr. Jeffrey A. Potteiger, Dean of Graduate Studies
- Awards: Dr. Jeffrey A. Potteiger, Dean of Graduate Studies, Dr. John R. Stevenson, Associate Dean of Graduate Studies, and Steven Lipnicki, Assistant Dean of Students
- Faculty Mentor Recognition Award: Austin Dean, GSA President, and Paul Jabaay, GSA Vice President

Award recipients please note: group photos will be taken immediately following the award ceremony.

Welcome!

Dear Graduate Students, Family Members, and Friends,

Tonight we honor those individuals who have distinguished themselves in graduate education at Grand Valley State University. We celebrate all the hard work and recognize the achievements made by these individuals at GVSU.

The awarding of the Dean's Citations for Academic Excellence is a proud Grand Valley State University tradition that honors the accomplishments of our graduate students. First held in 2006, this event recognizes the academic excellence of graduate students and faculty at our university. It originated through the combined efforts of the members of Graduate Council and the Graduate Program Directors. The Graduate Student Association and the Office of Graduate Studies are co-hosts for this evening's activities.

In the awards ceremony, we recognize excellence in academic performance in several categories. Graduate students can be nominated for these awards by staff, faculty, advisors, the graduate program director, and the departmental chair or school director who is familiar with the individual student's accomplishments in the specific areas of recognition. Nominees are reviewed by the Dean of Graduate Studies who makes the final selection. Each recipient will be granted a certificate of recognition and a graduate honors cord, which may be worn at commencement. We are also proud to honor several of our graduate faculty members who have distinguished themselves in mentoring and serving our students at GVSU. It is through their efforts that we create a rich and vibrant learning environment.

Grand Valley State University is proud of the accomplishments of these students and faculty members. I wish each and every one of our award winners a bright and successful future.

Congratulations!

I May M. M

Jeffrey A. Potteiger, Ph.D., FACSM Dean of Graduate Studies Grand Valley State University

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GRADUATE DEAN'S CITATIONS FOR ACADEMIC EXCELLENCE Winter 2013

ACADEMIC EXCELLENCE IN THE MAJOR

Seidman College of Business

Matthew C. Pear, Accounting

Kathleen A. Rose, Business Administration

College of Community & Public Service

- Rachel E. Dody, Health Administration
- R. Michael Gouin-Hart, Public Administration
- Brittani M. Anderson, Public Administration and Social Work

College of Education

- John A. Gipson, Higher Education
- MaryEllen Brocklehurst, School Counseling

Padnos College of Engineering & Computing

- Kevin L. Guyot, Computer Information Systems
- Yuka Kutsumi, Medical and Bioinformatics

College of Health Professions

Katherine K. Farrimond, Physical Therapy

College of Liberal Arts & Sciences

- Tamara L. Hillman, Biology
- Kevin D. Deemter, Biostatistics
- ✤ Lacey L. LaFave, Cell and Molecular Biology
- ✤ April D. Best, English

Kirkhof College of Nursing

Meridell J. Gracias, Nursing

OUTSTANDING DISSERTATION

Kirkhof College of NursingKathryn L. Speeter, Nursing

OUTSTANDING MASTER'S THESIS

Padnos College of Engineering & Computing

- Byron DeVries, Computer Information Systems
- ✤ Jeremy M. Pace, Engineering

College of Liberal Arts & Sciences

- Maisoun O. Al-sebaei, Communications
- Pauline Bleuse, English

OUTSTANDING MASTER'S FINAL PROJECT

College of Community & Public Service

- Heidi L. McPheeters, Public Administration
- Stacy L. Couch, Leah A. Cordes, Maureen T. Clore, and Jennifer A. Phelan, Social Work

College of Education

Scott D. Barry, Education

Padnos College of Engineering & Computing

Chris E. Bretl, Medical and Bioinformatics

College of Liberal Arts & Sciences
Julie E. Batty, Biology
Jaimie M. Pineda, Cell and Molecular Biology
Laura J. Hill, Communications

OUTSTANDING PUBLICATION

Padnos College of Engineering & Computing
& Byron DeVries, Computer Information Systems

College of Health Professions

Robyn E. Smith, Physical Therapy

EXCELLENCE IN SERVICE TO THE COMMUNITY OR PROFESSION

College of Community & Public Service
& Benjamin W. Grostic, Public Administration

College of Health Professions

Claire E. Dulin, Physical Therapy

College of Liberal Arts & Sciences

- Ehren R. Dueweke, Cell and Molecular Biology
- Tyler J. Richardson, Cell and Molecular Biology
- ✤ Jennifer L. Furner, English

Kirkhof College of Nursing

Erin M. Chillag, Nursing

EXCELLENCE IN LEADERSHIP AND SERVICE TO GVSU

College of Community & Public Service

Jennifer A. Jordan, Public Administration

Jessica K. Doerr, Social Work

College of Health Professions

✤ Amber M. Lenhart, Physical Therapy

College of Liberal Arts & Sciences

Charlotte S. Barth, Biostatistics

Jennifer L. Furner, English

Kirkhof College of Nursing

✤ Kimberly L. Lanning, Nursing

PROMOTING DIVERSITY AND INCLUSION AT GVSU

College of Health Professions

Andrew A. Post, Physical Therapy

Congratulations to all of the Winter 2013 Graduate Dean's Citation Award Recipients!

GRADUATE DEAN'S CITATION FOR ACADEMIC EXCELLENCE IN THE MAJOR Winter 2013

Seidman College of Business

Matthew C. Pear, Master of Science in Accounting

(B.B.A., Accounting and Finance, Grand Valley State University, 2011)

Matt has earned an outstanding GPA in his MSA studies while working for both the School of Accounting and the Finance Department as a graduate assistant. Matt offers his time freely to promote the School of Accounting. His volunteer efforts in organizing and presenting at the School of Accounting's Backstage Pass/Careers in Accounting Internship session resulted in this event being one of the most informative and successful programs we have offered. His dedication, hard work, and enthusiasm in the MSA program have been exemplary. He will represent GVSU and the School of Accounting very well in the profession.

***** Kathleen A. Rose, Master of Business Administration

(B.A., Business Administration, Cornerstone University, 2006)

The Seidman MBA faculty are pleased to nominate Katie for this award. Katie is a thoughtful contributor to classroom discussions, modeling analytical and critical thinking skills. She emerges as a competent yet modest leader in student team projects where she brings out the best in all team members. In fact, she was one of a three-member Seidman MBA student team that won the West Michigan regional mergers & acquisitions case competition in February. The competition was sponsored by the Association for Corporate Growth and was judged by a panel of industry experts who praised the team for their professional presentation and analysis of the case.

College of Community & Public Service

 Rachel E. Dody, Master of Health Administration (B.A., Psychology, Hope College, 2005)

Rachel has been a top academic achiever from her first course in the program to her graduation. Her work ethic focused her not only on her studies and achieving excellence on assignments, but went beyond. She challenged herself to always search for real-world, applied ends in her assignments. The results she achieved from her focus include not just a high GPA but also a full time job performing highly technical work in her chosen field. Rachel is an active member of GVSU's Healthcare Graduate Student Alliance and a student member of the American College of Healthcare Executives, Great Lakes Chapter. She also serves as a trustee of Glenside Neighborhood Association.

* R. Michael Gouin-Hart, Master of Public Administration

(B.A., English Literature, Kalamazoo College, 2003)

Michael is a top student in the program, but he sets his sights higher than most by seeking to integrate liberal arts with professional education and practice. He does this by referencing classic literature in his research to enhance theoretical analysis, and excellence in writing. For example, his capstone project builds on critical and social theories to explore the topic, "Power and the People: Groups, Organizations, and Mediating Structures in Stone' Polis." Michael currently works as a grants developer for Spectrum Health Hospitals. He is also the former executive director of the Association of Literary Scholars and Critics in Boston.

Brittani M. Anderson, Master of Public Administration and Master of Social Work

(B.S., Psychology, Grand Valley State University, 2011)

Brittani is completing a dual-degree program and was nominated for this award by the School of Social Work for her outstanding academic work. She has excelled academically; in the classroom, in her writing, and in her fieldwork. She is currently an Integrated Health Program Analyst at Ionia County Community Mental Health, where she recently presenting at the Michigan Association of Community Mental Health Boards Annual Conference and previously served on the Parent-Child Visitation Task Force. She also served as a volunteer for the West Michigan Refugee Education & Cultural Center through a collaborative reading program for refugee children.

College of Education

Solution John A. Gipson, Master of Education in Higher Education

(B.S., Elementary Education, Western Michigan University, 2011)

John is an exceptional student, a gifted writer, critical thinker and passionate student advocate. His active involvement in the profession as a graduate student is impressive. John also takes his role as an academic advisor in the College of Education as central to the success of many students. He is an ethical practitioner who understands the role of theory to practice, reflects on his work on a regular basis, and engages others through the college and among his student peers in discussions about best practice. John represents the very best of the profession: a practitioner scholar who is passionate about education, student affairs and the success of all of our students.

 MaryEllen Brocklehurst, Master of Education in School Counseling (B.S., Human Services, Lake Superior State University, 1982)

MaryEllen stands out among our most capable students as one who is both thorough and meticulous in her work. MaryEllen has those quiet leadership and advocacy skills so prized in our profession. She is an excellent role model for her school counseling peers as well as for the students and adults with whom she works at her internship site. She has researched materials that support her work with the at-risk students to whom she has been assigned. The school counseling faculty agrees that MaryEllen will make an excellent school counseling professional and anticipates that she will represent the program well as an alumnus.

Padnos College of Engineering & Computing

 Kevin L. Guyot, Master of Science in Computer Information Systems (B.S., Computer Science, Grand Valley State University, 2002)

Kevin is a diligent student, he offers insight in the classroom, and he engages in discussions. He is currently carrying a perfect 4.0 GPA. It is not a stretch to say that Kevin is a model student. He is naturally curious and extremely talented. Kevin's academic advisor and project mentor had this to say: "Kevin is among the very few students that I feel I could leave alone for the entire semester and be pleasantly surprised when he showed up to give his project presentation. I give him my strongest recommendation." Kevin is currently a Team Leader at

Johnson Controls, managing the North American Shop Floor Platform application development teams.

 Yuka Kutsumi, Master of Science in Medical and Bioinformatics (B.A., Biology, Kalamazoo College, 2011)

Yuka is a very interested and active student; she is always among the best in the class. She is an excellent team worker, always contributing new ideas, and always willing to learn. She shows this in class and even more in challenging class and research projects during the course of the program. For her capstone research project, she chose a high-performance computing project to analyze the virulence/risk-factor of the Helicobacter pylori infection among the diverse human genome. This project exceeds the expectations on a capstone project in the Medical and Bioinformatics program. Considering Yuka's academic record, special ambition, and determination, she is very deserving of this award.

College of Health Professions

***** Katherine K. Farrimond, Doctor of Physical Therapy

(B.S., Biomedical Science, Grand Valley State University, 2010)

Katie has demonstrated excellence in the classroom and while participating in her clinical affiliations. In the classroom, Katie demonstrates not only high intelligence, but a solid work ethic, inquisitive mind, and good critical thinking skills. This is reflected not only by quality work and performance but by thoughtful questions pertaining to the material presented. She is an active participant in the classroom and contributes to her classmates' learning as well. Her interactions with both faculty and classmates are consistently on a professional level, and Katie has received high marks for her performance and professionalism during her clinical affiliations. She will represent the profession well.

College of Liberal Arts & Sciences

 Tamara L. Hillman, Master of Science in Biology (B.S., Biology, Grand Valley State University, 2011)

As a student, Tamara has done an outstanding job and her commitment to her academic program has been obvious. Tamara has been willing to go above and beyond, making her an outstanding graduate student. She is thoughtful and

inquiring, and has a very positive attitude. It is clear that she has developed an intuitive sense that often comes later in one's career. While Tamara has maintained high standards in her course work she also has invested a significant amount of effort in her thesis research. Tamara exemplifies the ideals of what graduate education should be; outstanding academic performance and a clear commitment to pursing new knowledge.

Kevin D. Deemter, Master of Science in Biostatistics

(B.S., Biology, Hope College, 2009)

The faculty of the Statistics Department noted how Kevin always goes way beyond the minimum in all his assigned work. Through his graduate assistantship, he provided statistical support to the Kirkhof College of Nursing. The faculty remarked that "Kevin displayed an eagerness to learn, and an ability to communicate with faculty and peers. As he began his position, he showed a natural skill at asking the right questions of researchers to help discern appropriate analysis plans for their projects." While maintaining excellence in the classroom and his graduate assistantship, Kevin also has been performing at a high level at his internship at MPI Research in Mattawan, MI.

Lacey L. LaFave, Master of Science in Cell and Molecular Biology (B.S., Biology, Grand Valley State University, 2011)

Lacey has maintained an excellent GPA in a demanding sequence of courses in the Professional Science Masters in Biotechnology program. In addition to her stellar academic performance, she carried out a successful internship at Syzygy Inc. and her work was featured at GVSU's inaugural Professional Science Master's Internship Recognition Luncheon in Fall 2012 as well as the Office of Graduate Studies' annual Graduate Showcase in April 2013. Lacey was also a very effective Graduate Assistant in cell and tissue culture, her supervisors reported that she was a leader, communicated effectively and did an excellent job of lab preparation.

April D. Best, Master of Arts in English

(B.A., English Language and Literature, York University, 2009)

April has done outstanding work in all areas of the program: as student, graduate assistant, scholar, and citizen. In a talented group of students, she was the strongest. April has done excellent work on her thesis, exhibiting the independence and discipline that have been hallmarks of her graduate career.

Two characteristics that distinguish April from her peers are her motivation and her independence. She is a mature, intelligent student whose work is consistently excellent. She is a driven scholar. She is a worthy representative of the MA students and of the department and a promising scholar in the field.

Kirkhof College of Nursing

Meridell J. Gracias, Doctor of Nursing Practice

(M.S.N., Nursing, Grand Valley State University, 1989)

Meridell is an outstanding student and demonstrates the qualities of excellence as a scholar, health professional and leader. She will be a fine example of the excellence that GVSU graduates demonstrate as community leaders. Meridell has excelled in the program and demonstrated the competencies of a dedicated health professional, as indicated by her 4.0 GPA. Other activities she has participated in include the launching of the local DNP organization and membership in Omicron Delta Kappa and Phi Kappa Phi groups and she has been a regular member of the Kirkhof College of Nursing Centers of Distinction "Vulnerable Populations" group.

GRADUATE DEAN'S CITATIONS FOR OUTSTANDING DISSERTATION Winter 2013

Kirkhof College of Nursing

***** Kathryn L. Speeter, Doctor of Nursing Practice

(B.S.N., Nursing, University of Detroit-Mercy, 1989)

- **Dissertation Title:** Severe Mental Illness in Adults and Physical Health Outcomes
- Dissertation Committee: Dr. Andrea Bostrom (Chair), Dr. Dianne Conrad, Dr. Sandra Portko, Ms. Patricia Hawkins

Kathy's project involved physical health screening and development of a health promotion action plan for the seriously mentally ill population. As the basis for her project, she used knowledge from evidence-based research to introduce a new practice approach into a mental health facility practice. She demonstrated organizational and systems leadership by utilizing advanced communication skills and processes to lead this quality improvement project among the Community Case Management team in a manner designed to promote sustainability of this practice approach beyond the scope of the specific project.

Her integration of informatics competencies was demonstrated by utilizing information technology to support the improvement of the physical health of this population of patients. Overall, the project was a demonstration of Kathy's attainment of the competencies of the Doctor of Nursing Practice professional. She also has participated in the classroom, clinical sites and community organizations demonstrating the joy of learning as part of a community of scholars. Kathy is an outstanding student and demonstrates the qualities of excellence as a scholar, health professional and leader.

ABSTRACT

The purpose of this project is to evaluate the implementation of the Physical Health Check (PHC) tool for adults with a severe mental illness (SMI) and to determine if the implementation will result in an actionable plan that the client and agency will accept. Evidence that this is occurring will be noted by the presence of a completed PHC tool in the record, an action plan being incorporated into the treatment plan for each client, and by documented evidence that clients are making positive changes in their health. The outcome of this project will also include an assessment of case managers' attitudes about the value and effectiveness of the PHC tool and their intent to incorporate it into the health record. This will be accomplished through a focus group led by the project coordinator.

The PHC tool will be used to interview participants receiving services at a community case management clinic site that is part of a large healthcare system of psychiatric services including inpatient, outpatient, and residential services. Clients exhibiting signs of active psychosis will be excluded from participating in the project. Data will include blood pressure, height, weight, waist circumference, and a calculated body mass index at the start and completion of the project. Data on physical health history and status will be collected at the initial appointment through the use of the PHC tool. An action plan will be developed with clients to identify a healthpromoting behavior they are willing to engage in to address a prioritized physical health need. Participants will complete a 6-item self-efficacy tool to evaluate their self-confidence with accomplishing their health-promotion goal at the beginning and end of the project. It is expected that the ability to identify changes in physical health status and address concerns before the clients' health deteriorates will help to reduce the effects of chronic illness and improve the quality of life for these individuals.

GRADUATE DEAN'S CITATIONS FOR OUTSTANDING MASTER'S THESIS Winter 2013

College of Community & Public Service

✤ Lindsay M. Tryc, Master of Social Work

(B.A., Criminal Justice, Grand Valley State University, 2011)

- **Thesis Title:** The Experience of Being a Foster Parent in Non-Kinship Placements: Emotional and Psychological Impacts
- **Thesis Committee:** Dr. Cray Mulder (Chair), Mary Banghart, LMSW, Renee Orr, LMSW

Lindsay is nominated for this award based on her noteworthy work on her master's thesis. She was invited to present her research at the Office of Graduate Studies' annual Graduate Showcase, which selects the top research projects from each graduate program. She has also served as a Graduate Assistant for the School of Social Work since 2011, assisting faculty members with interviews and transcriptions.

Lindsay's research contributed to the field of social work specifically by furthering understanding of how and why foster parents chose to stay involved with non-kinship placements particularly when the child may have experienced years of abuse and trauma, leading to behaviors that can be difficult to understand. This is important research related to foster care placements, as it will add to the knowledge of the emotional bonds that are developed through attachment.

ABSTRACT

Due to previous life experiences, children who enter the foster care system have been significantly impacted in numerous ways; and the individuals who act as their caregivers may encounter behavioral challenges as they seek to address the result of what years of abuse and trauma have created. However, as placements progress over time, the foster child may also become an integrated member of the foster family and thus attachments are formed. As a result, foster parents may experience the significant impacts of managing severe and challenging behaviors as well as breaking strong attachments with the foster child who has largely become family. *Continued on next page*.

ABSTRACT CON'T

Therefore, the intent of this research study was to gauge how managing behavioral challenges and forming attachments with foster children may impact the families in non-kinship placements, emotionally as well as psychologically. Furthermore, it was important to determine if these impacts additionally served as deterrents for foster families to continue their placements.

The process of data collection consisted of interviews conducted with foster parents individually as well as a couple when applicable, with a previously established interview protocol serving as a guiding framework. The interviews were then transcribed and assessed for emerging themes, commonalities as well as discrepancies. Lastly, the psychological and emotional impacts of managing behavioral challenges and forming attachments were identified and discussed. As the findings indicate, despite their intensity, these impacts did not serve to deter participants from continuing their role as foster parents. Overall, the findings of the present study were largely consistent with previously cited research and provided additional implications as well as recommendations for future policy and practice.

Padnos College of Engineering & Computing

- Byron DeVries, Master of Science in Computer Information Systems (B.S., Computer Science, Calvin College, 2005)
 - **Thesis Title:** Mapping of UML Diagrams to Extended Petri Nets for Formal Verification
 - **Thesis Committee:** Dr. Paul Jorgensen (Chair), Dr. Christian Trefftz, Dr. Jagadeesh Nandigam

"Without any hesitation, I can assure you that Mr. DeVries' thesis is the very best I have ever supervised," is how Dr. Paul Jorgensen, professor of CIS, describes Byron's work.

Software development is difficult for a variety of reasons, not the least of which is the deep complexity inherent in many software applications. Perhaps the worst case of complexity arises from event-driven systems that are also characterized by concurrency. The key to eventual success in such applications is the ability to understand, via formal mathematical models, the important behaviors of such systems. There is only one appropriate model that deals correctly with event-driven concurrency—the Statechart notation created by an Israeli mathematician, Prof. Dr. David Harel.

Leading to his thesis work, Byron wrote a paper on an interesting Petri-Net question that concluded with a conjecture that EDPNs can be expressed by statecharts, and conversely, that statecharts can be expressed as EDPNs. In his master's thesis, he continued this strong, mathematical elegance. Byron has successfully mapped several major classes of statecharts to an extension of Petri Nets that he calls "Swim Lane Petri Nets." (The "swim lane" notion is used in UML to show concurrent execution. By extending this to Petri Nets, he moves them to near equivalency with statecharts. The overall impact of Byron's thesis is that the expressive capability of (several classes of) statecharts is now shown to be equivalent to a form that is much more easily used and understood.

Byron is also the recipient of the Graduate Dean's Citation Award for Outstanding Publication from the School of Computing and Information Systems.

ABSTRACT

PURPOSE: UML Statechart Diagrams are the industry standard for modeling dynamic aspects of system behavior. However, other behavioral models, such as extended Petri Nets, are significantly easier to analyze formally. This research project creates methods of converting previously unconvertible features of UML Statechart Diagrams to extended Petri Nets to allow for additional analysis of UML Statechart Diagrams. PROCEDURES: Algorithms are introduced that convert specific UML Statechart Diagrams to a novel behavioral construct, Swim Lane Petri Nets, and subsequently to extended Petri Nets as well as direct conversions to extended Petri Nets. Algorithms are also introduced to convert both Swim Lane Petri Nets and extended Petri Nets to the PROcess MEta LAnguage (PROMELA) to allow for detailed formal verification using the SPIN model checker. OUTCOME: Formal definitions of the behavior models, XML representations of these models, and algorithms for conversions between the models are presented with a focus on traceability between translated models to allow for backtracking the results of formal analysis in the SPIN model checker to the original behavioral construct. IMPACT: While UML Statechart Diagrams are the industry standard and provide an intuitive representation of behavior models, formal analysis is limited and difficult. Providing a method of translation to extended Petri Nets, which are more analyzable but less intuitive, adds significant practical value the use of UML Statechart Diagrams in model based development.

✤ Jeremy M. Pace, Master of Science in Engineering

(B.S.E., Engineering, Grand Valley State University, 2011)

- **Thesis Title:** Epileptic Seizure Detection in Intracranial EEGs using Time-Frequency Analysis and Artificial Neural Networks
- **Thesis Committee:** Dr. Samhita Rhodes (Chair), Dr. Robert Bossemeyer, Dr. Paul Fishback

Jeremy's thesis represents an exciting new collaboration between the School of Engineering, and Department of Mathematics at GVSU, with the Division of Neurosurgery at Spectrum Health. His work focuses on the automated detection of epileptic seizures from multichannel intracranial EEG recordings obtained routinely in Epilepsy Monitoring Units around the country.

Jeremy's thesis involves the application of sophisticated algorithms to help surgeons perform tasks that have important and immediate clinical ramifications thereby exemplifying the Master of Science in Engineering degree at this university. His thesis is a testament to the importance of intramural and extramural collaboration for advancing scientific knowledge. Jeremy has submitted an abstract on his work to the annual meeting of the Biomedical Engineering Society to be held in October 2013. For his exemplary collaborative research work, and his successful dissemination efforts the faculty of the School of Engineering highly recommend Jeremy for this award.

ABSTRACT

Visual inspection for epileptic seizures in multichannel, long-term EEG recordings is tedious and time consuming. Previously, mathematical and statistical analysis techniques have been employed with some success in automated detection of seizures from smaller pools of EEG data that are limited in time and number of channels recorded. We propose a scheme that localizes and classifies epileptic events in multichannel EEG recordings that are several days to weeks in length, using a combination of time-frequency (t-f) analysis followed by a classification procedure using artificial neural networks (ANN). The classification procedure was executed in three steps: 1) t-f spectra of signal power were estimated using Short-time Fourier transform in 10-second windows 2) mean power in 0-4 Hz, 4-8 Hz, 8-13 Hz, and 13-100 Hz frequency bands were calculated to serve as classification features for the ANN, 3) EEG data were classified as epileptic or non-epileptic using ANNs and a voting system. *Continued on next page*.

ABSTRACT CON'T

Data for the study were obtained from Spectrum Health epilepsy monitoring unit (EMU) after all patient information had been scrubbed. Data were recorded continuously for two weeks at a sampling frequency of 1000 Hz using intracranial electrode arrays. Due to the limited number of epileptic seizures, the model parameters of the ANN were trained using a jackknifed technique on five or ten of the sixteen epileptic seizures. Evaluation of the methods is done using data obtained from Spectrum Health EMU, and performance of the scheme was ranked using confusion matrices and calculated sensitivity and specificity. From analysis of the data it was determined that training the model parameters of the ANN with either five or ten epileptic seizures yielded excellent performance detecting 92% of the seizures. As expected, detection performance was better with model parameters obtained using ten vs. using five seizures for training the ANN. The proposed technique for classification of epileptic events from long term EEG recordings will allow neurosurgeons to focus on areas of interest in the large pool of recorded EEG data thereby reducing the amount of time required for visually inspecting the EEG recordings and improving the sensitivity and specificity with which epileptic events are classified.

College of Liberal Arts & Sciences

- ***** Maisoun O. Al-sebaei, Master of Science in Communications
 - (B.S., Computer Science, King Abdul-aziz University, Saudi Arabia, 2004)
 - Thesis Title: Egyptian Diasporas, Social Media, and the 2011 Egyptian Revolution: How Egyptians Living in Saudi Arabia Used Social Media During the Revolution
 - Thesis Committee: Dr. Danielle Leek (Chair), Dr. Alex Nesterenko, Dr. Majd Al-Mallah

Maisoun's thesis is in fact ground breaking. Social media and Egyptian diasporas have not been studied in this way before. It is a genuine first, particularly as one considers the significance of the Arab Spring, Maisoun's thesis all the more important. Maisoun was asked to present her research at the Office of Graduate Studies annual Graduate Showcase, highlighting the uniqueness and importance of her thesis. Maisoun has the natural curiosity of a scholar and the drive to pursue a doctoral degree. The faculty of the School of Communications are confident that she will be a major contributor to the field of communication.

ABSTRACT

The number and size of diasporas in the Middle East is increasing. However, scholars have not explored how diasporic communities in the region are engaged with recent political changes brought about by the Arab Spring. This study reports the results of interviews with Egyptians living in Saudi Arabia during the 2011 Egyptian Revolution in an effort to discern how this diaspora used social media platforms during the revolution. Grounded theory is used to analyze the interviews. The study concludes that social media provided a proper platform for the Egyptian diaspora to collect new political information and connect with people in Egypt. This Egyptian diaspora used social media to sustain strong ties with people in their homeland, increase their sense of political participation, and confirm political activity in their homeland.

Pauline Bleuse, Master of Arts in English

(B.A., English, University of Waterloo, Canada, 2010)

- Thesis Title: The Other In Henry Roth's Call It Sleep
- Thesis Committee: Dr. Robert Franciosi (Chair), Dr. Corinna McLeod, Dr. Mack Smith

Pauline first approached writing a thesis on immigrant American literature and the challenges of negotiating the English language by considering Henry Roth's massive 1934 novel, *Call It Sleep*, an enormously challenging work that few students have ever encountered. To the surprise of the faculty, this young woman from France not only had heard of the novel but had read it in English.

From that simple conversation began a thesis which took on this daunting work of fiction, approaching the novel in a manner that was sophisticated, subtle, provocative, and utterly convincing. Pauline's study of the Other in *Call It Sleep* is an important contribution to the understanding of this great American text. And as excellent as her thinking is regarding Roth's book, even more impressive in the thesis is the quality of her writing.

There have been many excellent M.A. theses in English over the years, and Pauline's work can stand beside any of them. The English graduate committee agreed that Pauline's excellent work should be honored with this award.

ABSTRACT

This thesis project focuses on the notion of the Other in Henry Roth's 1934 novel *Call It Sleep*. The novel follows David as his family moves to New York and struggles in poor areas. David's inner world is rendered through a style which is reminiscent of a modernist stream of consciousness while retaining the realism of the 1930s proletarian novel. Call It Sleep is a rich text for the study of immigration and multi-culturalism and approaching the novel through the theme of the Other allows for multiple interpretations. The first chapter uses Jacques Lacan's theories on Desire and analyzes David's obsessive behavior toward objects representing purity. Lacanian Desire stems from lack and is transferred to objects that cannot bring satisfaction once attained. Lacan's theories explain David's quests and can be used to understand the 'American Dream' migrants followed as a spatial localization of this unattainable desire. The second chapter looks at Roth's treatment of languages and identification of and with the Other. David is an Other for the two cultures he is in contact with and is either included or excluded by different languages. David's identity as an Other fluctuates depending on which culture he is in contact with. Roth's treatment of language and identities is still relevant as we struggle to find a balance between assimilation and multi-culturalism. The last chapter looks at Call It Sleep from a feminist point of view. In her essay 'Women on the Market', Luce Irigaray analyzes our society's treatment of women as commodities and their exchanges. Irigaray's theory allows for a unique perspective on the transition between a patriarchal society to a consumerist American society where women are objectified. These different approaches allow for a comprehensive study of the Other in the text and inform on the different manifestations of the Other in our world, between the alienation of our desires, fragmentation of the self, the Otherness experienced in a multicultural society and the Othering of women. Analyzing Call It Sleep under these different lenses allow for a better understanding of the relation of the self and the Other for multi-cultural individuals.

GRADUATE DEAN'S CITATION FOR OUTSTANDING MASTER'S FINAL PROJECT Winter 2013

College of Community & Public Service

✤ Heidi L. McPheeters, Master of Public Administration

(B.S.W., Social Work, Calvin College, 2005)

- **Title:** Community Grantmaking Intermediaries: Maintaining Relevancy in the Face of Competition
- **Advisor:** Dr. Priscilla Kimboko

Heidi's final project addresses an important practical and contemporary issue in the field. Grant making intermediary organizations (community foundations and the United Way) have played a central role in funding community nonprofits, but now face unprecedented challenges to their utility and effectiveness. Utilizing theory and original research, the paper identifies and analyzes these challenges, and concludes with strategic recommendations for moving forward that will benefit these organizations and the communities they serve. Heidi's paper will appear in next edition of the School of Public, Nonprofit & Health Administration Review.

While in the MPA program, Heidi has been an outstanding student while serving as the graduate assistant to Dr. Michael Moody, the Frey Chair for Family Philanthropy. She created a fund development plan and a three-year strategic plan for the Grand Rapids Red Project and wrote a grant proposal for the Fulton Street Farmers Market Capital Improvement Project. She also produced a program evaluation plan for the Women's Resource Center.

ABSTRACT

There has been a strong tradition of community philanthropy throughout the United States through "grantmaking intermediaries" or "intermediary organizations that collect money from individual donors and then grant it to charities" (Lenkowsky, 2002, p. 355). With the rise in competition, particularly with donor-advised funds, this paper focuses on two particular intermediaries, the United Way and community foundations. It explores their strengths and opportunities to enhance their relevancy, particularly by fostering civic engagement, as well as organizational shortcomings and current efforts that minimize their relevancy. *Continued on next page*.

ABSTRACT CON'T

The research studies two United Way organizations and two community foundations. Current efforts to maintain their distinctive values are identified, including efforts with participating in community conversations, collaborating across organizational networks, and intentional funding overlap and community collaboration. Efforts that minimize relevancy and their capacity to promote civil society include their short-term grantmaking cycles, their lack of advocacy and utilization of data to determine funding decisions, donor control over gifts, misaligned organizational structure relative to mission, and competition for the role as the community leader. Suggestions are made to heighten relevancy, particularly to enhance their capacity to leverage the unique position that they have to embody the common community vision to address social issues. *Reference*:

Lenkowsky, L. (2002). Foundations and corporate philanthropy. In L. M. Salamon (Ed.), The state of nonprofit America (pp. 355-382). Washington D.C.: Brookings Institution Press.

Stacy L. Couch, Leah A. Cordes, Maureen T. Clore, and Jennifer A. Phelan: Master of Social Work, Traverse City

- **Title:** Child Welfare Workers: Why Do They Stay? Why do They Leave?
- Advisor: Dr. Dorothea Epple

Stacy L. Couch, Master of Social Work

(B.A., Family Life Education, Spring Arbor University, 2007)

Stacy is currently a Families First supervisor for Lutheran Child & Family Service of Michigan. Her experience in the social work field include working in Big Brothers Big Sisters, Crossroads Ministries New Life Pregnancy Center as an advocate, and has been a team leader in the Otsego Take Time to Care Program for over fifteen years.

***** Leah A. Cordes, Master of Social Work

(B.A., Human Services, Concordia College, 1989)

Leah is currently a Social Worker with Centra Wellness Network in Northern Michigan focusing on children and adults with mental illness, developmental disabilities, and/or substance abuse. She has spent the last 24 years working in the community mental health setting both in the Chicagoland area and most recently in Northern Michigan. Her experience in the field of social work include work with the courts, schools, work with children and families and a afterhours crisis counselor.

***** Maureen T. Clore, Master of Social Work

(B.S., Human Development, University of Illinois at Urbana-Champaign, 1993)

Maureen is currently a Children's Services Supervisor with the Michigan Department of Human Services. She has worked in the field of social work for the 17 years. She has experience in prevention, community development, child welfare and adult services.

✤ Jennifer A. Phelan, Master of Social Work

(B.S., Psychology, Western Michigan University, 2010)

Jennifer is currently employed with a private practice in Traverse City, Michigan. Her experience in the field of mental health includes crisis counseling, work with youth and families, and case management.

Faculty from the School of Social Work remarked that this project is significant as it adds to the literature regarding the longevity of child welfare workers and what factors contribute to workers remaining in child welfare work and why some leave. Their study gives insight to child welfare organizations regarding the importance of peer and supervisor support, agency benefits, personal environment and job satisfaction in retention of child welfare workers. Child Welfare organizations have high turnover rates and the research gives insight to what steps could be taken to increase job satisfaction and retention of workers.

ABSTRACT

The issue of burnout has been synonymous with social work since its early stages. Social work burnout has been documented and studied for many years. One of the fields in social work is the child welfare system. Many of these social workers in this system are dealing with secondary traumatic stress, and large caseloads to name a few. What has not been focused on in many studies is what factors lead social workers to remain in the child welfare field and how does an agency recognize these traits. *Continued on next page*.

ABSTRACT CON'T

This study was conducted to determine what those factors were and how child welfare workers deal with the issue of burnout and still remain committed to working with children and families. Three qualitative interviews were conducted and themes were explored to help provide some implications for social work practice and future research in the area of child welfare worker retention. The factors that were focused on in this study included organizational and personal factors in social workers lives. The main themes recognized in this study included job satisfaction, support of family peers and supervisors, agency benefits that included training, pay and tuition reimbursement, self-care, and personal environment such as geographical area.

College of Education

 Scott D. Barry, Master of Education-Advanced Content Specialization in Music

(B.A., Music Education, Grand Valley State University, 2002)

- **Title:** Loss of Interest and Attrition in Instrumental Music: An Elementary Recorder Project
- o Advisor: Dr. Douglas Busman

"Simply put, without students, instrumental music in schools will cease to exist." Scott's project explores explanations and potential solutions for attrition and loss of interest in instrumental music across age levels, with additional focus on the study of recorders at the elementary level. This unique capstone project was nominated by the faculty of the College of Education for its contribution to the field of musical education. For programs to be successful, keeping students already in the program from dropping out is even more important than recruiting new members. Scott has identified potential indicators for loss of interest, including socioeconomic factors, academic achievement, musical aptitude, and parental support, and then proposed creative strategies for preventing attrition.

Scott serves as an Elementary Music Teacher at Hudsonville Public Schools, as well as co-directs the LUMIN8 Children's Choir at Calvary Church in Grand Rapids.

ABSTRACT

This project explores explanations and potential solutions for attrition and loss of interest in instrumental music across age levels, with additional focus on the study of recorders at the elementary level. After reviewing important literature, several strategies are suggested, the most important being the practice of grouping students into cooperative learning ensembles. These small groups are intended to motivate reluctant learners and weaker players, provide effective feedback, and develop musical teamwork. Based on the literature, potential indicators for loss of interest have been identified, including socioeconomic level, academic achievement, music aptitude, attitude toward future playing and parental support. Diagnostic assessments for each indicator have been described, with data being used to group students into small ensembles. Other strategies which may improve interest are specified, such as the inclusion of popular music, programming duets and trios with differentiated parts, intentional and specific positive teacher interactions with students and parents, and carefully crafted assessment to improve basic learning, improve performance, and stretch critical thinking skills. A description of the implementation of these strategies into a fourth grade music classroom is also detailed.

Padnos College of Engineering & Computing

✤ Chris E. Bretl, Master of Science in Medical and Bioinformatics

(B.S., Applied Biology, Ferris State University, 2005)

- **Title:** Requisites and Best Practices in the Implementation of Lean Principles Applied to Hospital Quality Improvement Initiatives
- Advisor: Dr. Guenter Tusch

Chris's curiosity and interest in new developments and research are remarkable. He showed this in class and even more in the capstone project, most of which he chose himself. He did an excellent job in completing everything in time and fulfilling the requirements given in the assignment.

The assignment was a literature research on Lean Healthcare and to write an overview paper. Besides giving an overview on Lean Healthcare efforts, Chris also researched data sources to try to statistically prove if there is an advantage for a hospital to apply Lean Healthcare principles. He used data from Medicare and combined them with a list of hospitals that choose DNV accreditation (ISO 9001 compliance) as a proxy for hospitals that apply Lean Healthcare principles. Since Medicare data are anonymous, Chris had to develop a reidentification algorithm that yielded an exact match for 213 of the 260 DNV accredited hospitals. He could show that those hospitals are actually performing significantly better in a number of measures. Chris not only leveraged in his project what he had learned in class and his previous work experience, he by far exceeded the expectations on a capstone project.

ABSTRACT

Since health care has become an area of continued attention in the pursuit of reducing government waste, it is a natural candidate for the application of the systematic and data driven techniques defined by TQM, Six Sigma, Lean, and ISO 9001 philosophies. The nature of healthcare as a service necessary for wellbeing, the presence of third party payers, and the non-employee relationship between hospitals and healthcare providers contribute to presenting unique challenges when implementing quality improvement initiatives. This paper performs a literature review of the relationship between quality management practices and their effects on quality outcomes focusing on the unique challenges to implementing quality improvement initiatives in a healthcare setting. An approach is suggested using elements of TQM to create a standardized management structure and organizational focus (Irani et al., 2004; Taveira et al., 2003), lean to identify waste, six sigma to reduce redundancy and monitor processes so that small tests of change can be effectively monitored via the Plan Do Check Act (PDCA) cycle, and ISO 9001 to ensure that monitored processes are documented and enforced.

Previous studies have shown Baldrige Award (for Performance Excellence) winning hospitals to have better patient safety records than similar hospitals that have not won the Baldrige Award (Denney et al., 2009; Foster, 2011). We continue this investigation by comparing patient safety in hospitals that choose DNV accreditation to hospitals that choose another accrediting body. The DNV hospital accreditation organization "seamlessly introduces ISO 9001 quality methods into the hospital setting." If the assumption is made that hospitals focused on standardization and process oriented quality improvement initiatives would choose the accreditation agency most closely aligned with its quality improvement philosophy, then DNV accredited hospitals would represent a more process-oriented population than their peers. This paper investigates whether a hospital's investment in a formalized methodology of quality improvement translates into better performance on select AHRQ and SCIP measures of patient safety, patient satisfaction via the HCAPS survey, readmission rates for select conditions, and hospital acquired conditions by comparing DNV accredited to non-DNV accredited hospitals. I found significance in 6 of 61 metrics available in the data.

College of Liberal Arts & Sciences

✤ Julie E. Batty, Master of Science in Biology

(B.S., Wildlife Biology, University of Missouri-Columbia, 1997)

- Title: Development and Evaluation of Children's Environmental Interpretation Programs for the Ottawa County Parks Nature Education Center
- Advisor: Dr. Jodee Hunt

Julie's project is unique because it combines theory, practice, assessment, and inquiry-base science to develop new educational programs for Ottawa County Parks. This integrative approach to assessing and developing programming at outdoor education centers has tremendous potential, particularly as schools struggle to meet educational standards. And while Julie's work presents a new way to approach outdoor education programs, it does not abandon the core of such programs; using the natural environment as a classroom. Julie's efforts have set a new standard for future graduate projects in biology.

The level of synthesis behind Julie's project is equally matched by her level of commitment to the project. Indeed, Julie's commitment to her program in general has been exceptional. Julie's graduate career exemplifies the ideal of a graduate student's program; strong performance in structured courses and an individualized effort that produces a unique and notable body of work.

ABSTRACT

This project focused on the interpretive programs for children at the Ottawa County Parks Nature Education Center in Port Sheldon Township, Michigan. The goals of this project were to 1) conduct an evaluation of school-group programs that utilized drawings produced by students before and after their field trips; and 2) develop an inquiry-based program for a new 3-day long summer camp for students entering 4th through 6th grades.

The program evaluation utilized drawings made by students before and after an autumn-themed program to assess students' prior knowledge and misconceptions, changes in knowledge of the program topic, and overall impressions of the program. I analyzed 60 pairs of drawings made by second grade students from three West Ottawa County public elementary schools. Content analysis of the drawings revealed that students expected that they would see many animals during their trip. *Continued on next page.*

ABSTRACT CON'T

Post-program drawings contained fewer animals, and the animals depicted were common native species. The analysis found no change in knowledge about the program topic, although students' drawings of plants were more detailed after the program. A qualitative analysis of the drawings showed that students' pre-program drawings often consisted of stereotypical depictions of "outside", while their post-trip drawings were specific pictures of what they found interesting during their trip. Drawings uncovered misconceptions and provided information on what parts of the program captured students' attention, but were of limited use in assessing specific learning outcomes.

As the second component of the project I developed and taught an inquirybased day camp that focused on two forest habitats in Grand River Park in Georgetown Township, Michigan. The participants investigated the upland and floodplain forest habitats in the park to determine which would provide better habitat for woodland voles (Microtus pinetorum). After measuring forest characteristics in each area they decided based on their results which area was more likely to support woodland voles. Finally, they discovered what small mammals were present in the area they chose by live-trapping. Fifteen children aged 7-12 attended the camp from July 31 to August 2, 2012. An evaluation of the camp and suggestions for improvement are discussed.

✤ Jaimie M. Pineda, Master of Science in Cell & Molecular Biology

(B.S., Neuroscience, Central Michigan University, 2010)

- o Title: LC-MS/MS Analysis of Neurotrauma Eicosanoid Levels
- o Advisor: Dr. Ken Strauss, Michigan State University College of Medicine

Jaimie was recommended for this project when Dr. Ken Strauss at the MSU Neurotrauma Research Laboratory wanted a motivated, self-starting student to work on a research project. Jaimie proved to be an excellent addition to the lab, working extremely well with minimal supervision, independently and as part of a research team at odd hours to accommodate research schedules. Her excellent work, and her work ethic, increased the reputation of our program and GVSU and, as stated by the faculty, "left a positive impression of exemplary work which has further cemented the valuable collaboration between MSU and GVSU." In addition to being an effective scientist in the lab, Jaimie is an excellent communicator of her work. She was chosen to present her research at the 2012 MichBio Expo in Lansing, the GVSU Professional Science Master's Internship Recognition Luncheon, the Michigan Graduate Education Day, as well as the Office of Graduate Studies annual Graduate Showcase in 2013. Her nomination by the department is a testament to the quality and potential of her research work. Apart from her excellent academic performance, Jamie has demonstrated a high degree of leadership qualities by being elected the President of the newly revived graduate student group under the designation of Professional Association of Graduate Scientist (PAGS) which was formerly known as Life Science and Biotechnology Organization.

ABSTRACT

PURPOSE: The Professional Science Master's degree requires all students to complete an internship prior to graduation. The internship provides an opportunity to take what is learned in the classroom and laboratory and apply it to an real world experience. Internships provide feedback on techniques, new learning opportunities and a chance to network with people of the scientific community. CHALLENGE: 1.7 billion people are estimated to sustain a traumatic brain injury (TBI) annually, which can lead to death or permanent disability. The neurotrauma research of TBI, done my Dr. Kenneth Strauss's lab, hopes to find a way to treat patients by better understanding the biochemistry of the brain following injury. EXPERIENCE: As an intern for the MSU neurotrauma research laboratory, I was tasked with the analysis of rat and mouse brain eicosanoid levels following TBI. Eicosanoids are chemicals that have inflammatory and anti-inflammatory properties within the brain. The analysis of these chemicals was done using a Liquid Chromatography-Mass Spectrometer, a biochemical machine that allows for the study of small chemicals based on electronic charge and molecular weight. OUTCOME: My internship research has aided in the elucidation of how the eicosanoid family of chemicals impacts TBI. This and previous work will be submitted for scholarly publication in the future. IMPACT: My internship broadened my in-site of neuroscience, biochemistry and academic research of a prominent university. I was also had the opportunity to forge new connections and increase my networking in the biotechnology industry.

♦ Laura J. Hill, Master of Science in Communications

(B.A., English and Political Science, Western Michigan University, 1994)

- **Title:** Food Advertising and Marketing in School Aged Children and Young Adults
- Advisor: Dr. Alex Nesterenko

Laura's project is exceptionally innovative. She has aptly identified a health problem that implicates advertising and marketing of food products to childhood/teen obesity and makes suggestions for how things could be changed to diminish the problem. Her work is worthy of notice and celebration. Laura is a most capable student and has the drive, determination, curiosity, and ambition that will make her highly successful in the communications industry.

Laura is the Senior Marketing Communications Manager for Progressive AE. She is passionate about providing young people the tools they need for a healthy lifestyle. As such, she has actively participated in a variety of organizations that promote healthy living, including Progressive AE's Wellness Committee, Forest Hills Public Schools K-6 Health and Wellness Committee, Girls on the Run (through Huntington's Rising Women Leaders), and the Juvenile Diabetes Research Foundation. She also participates in Saint Mary's Health Center's Next Generation committee to encourage participation of younger people in how Saint Mary's is responding to the health care needs of the community.

ABSTRACT

The National Institute of Health has determined that more than two in three American adults are overweight or obese. One in three children/teens is overweight or obese. Overweight children have a 70%+ chance of staying overweight for their entire lives. There are significant consequences for society: \$150B is spent annually on obesity-related health care costs; loss of worker productivity (sick days) due to obesity-related illness; and, loss of potential work force in industries that require physical exertion (e.g., military, public safety). This project addresses how the practice of food advertising and marketing has impacted the rise in obesity from childhood through college years, some positive influences of marketing, and how food marketing could be changed to curtail the rise in obesity.

GRADUATE DEAN'S CITATION FOR OUTSTANDING PUBLICATION Winter 2013

Padnos College of Engineering & Computing

Solution Byron DeVries, Master of Science in Computer Information Systems

(B.S., Computer Science, Calvin College, 2005)

- **Title:** Parallel implementations of FGMRES for solving large, sparse non-symmetric linear systems
- **Co-Authors:** Dr. Joe Ianelli, Dr. Christian Trefftz, Kurt A. O'Hearn, and Dr. Greg Wolffe

Byron has an enviable work ethic, a healthy desire to learn, and the type of creativity necessary for quality research. Byron would like to pursue a doctoral degree in the future; he therefore wanted to experience a graduate-level research project. With his strong mathematical skills and ability to learn, the faculty felt he would be a good choice to join a computational research group, an interdisciplinary endeavor engaged in research into numerical methods.

The project turned out exceptionally well; it was a thorough and creative scientific study. The paper, on which Byron served as the primary author, was accepted for publication. Byron will be presenting this work at the International Conference on Computational Science (ICCS 2013) in Barcelona in June. ICCS is the premier conference in the area of computational science and is an ERA A-ranked conference, known for the quality of its technical papers. It reflects well on Byron and his research abilities that his work was accepted for presentation at this high-profile venue.

His efforts have benefitted the university by visibly representing GVSU via dissemination of his high-quality graduate-level research.

ABSTRACT

The Flexible Generalized Minimal Residual method (FGMRES) is an attractive iterative solver for non-symmetric systems of linear equations. This paper presents several methods for parallelizing FGMRES for a variety of architectures including multi-core CPU, Graphics Processing Units (GPU), and multi-GPU systems. The parallel implementations utilize OpenMP and CUDA kernels, and are organized according to thread scope. The linear systems employed in this study correspond to the discrete analogues of realistic three-dimensional convection-diffusion problems, and range in size to nearly 107 linear equations. All of the parallel implementations, particularly the novel hybrid approach, show a significant speedup over the sequential version. Theoretical insight and performance data is provided to allow informed decisions as to the most effective parallelization method for a given architecture.

College of Health Professions

* Robyn E. Smith, Doctor of Physical Therapy

(B.A., Exercise Science, Hope College, 2009)

- **Title:** Spinal Manual Therapy Interventions for Pediatric Patients: A Systematic Review
- **Co-Authors:** Dr. Daniel Vaughn, Dr. Lisa Kenyon, and Dr. Corey Sobeck

Robyn has served as a Graduate Assistant in the Physical Therapy Department, where she was involved in producing a systematic review of the literature searching for articles relevant to this manuscript. In addition, she provided periodic reviews of the manuscript in order to comment on its clarity and matters of grammar. The manuscript was published in the Journal of Manual and Manipulative Therapy in the fall of 2012. Robyn completed her clinical training through experiences at Kentwood Physical Therapy, Crittenton Hospital, NovaCare Rehabilitation, and Detroit Medical Center Rehabilitation Institute of Michigan. She is an excellent student and ranks in the top 5-10% of her class.

Robyn will also be presenting her research on *Velocity of Sway in Single Limb Stance after Achilles' Tendon Repair* in July 2013.

ABSTRACT

Objective: Although much has been written about the efficacy of manual therapy interventions for adults with headaches or spinal pain, little research has focused on the use of these interventions in pediatric patients. The purpose of this systematic review was to evaluate the evidence for spinal manual therapy (SMT) interventions in patients 4-17 years old with headaches and/or mechanical spinal pain. Methods: A search for relevant studies published in the past 15 years was conducted on MEDLINE, CINAHL, Cochrane Central Register of Randomized Control Trials, PEDro, PubMed, and Sports Discus. Only English language articles were reviewed. Studies had to include at least one outcome measure for pain, function, or quality of life. Studies evaluating post-operative interventions, or those in which the interventions were directed at influencing excessive spinal curvatures, were excluded. Case reports and studies that did not limit analysis of the results to the pediatric population were also excluded. Results: Two randomized control trials and two studies offering lower levels of evidence were identified in the literature search. The latter studies were prospective cohort studies. The four studies were evaluated using the GRADE (Grading of Recommendations Assessment, Development and Evaluation) criteria. Discussion: There are very little data in the literature to support or refute the use of SMT interventions in pediatric patients. Further research is required to establish a strong evidence-based foundation for use of these interventions in children.

GRADUATE DEAN'S CITATION FOR EXCELLENCE IN SERVICE TO THE COMMUNITY OR PROFESSION Winter 2013

College of Community & Public Service

Benjamin W. Grostic, Master of Public Administration (B.S., Architecture, University of Michigan, 2004)

Previous to starting the MPA, Ben worked for the American Red Cross, Shelter For Life International, and the Peace Corp. At various times he was stationed in Panama, Pakistan and Afghanistan. Ben documented his work abroad in the book *Finding Purple: A Walk Down The Path Of Sustainable Development*. We see prominent leaders and even majestic kings represented throughout history by the color purple. The books title alludes to finding the majestic purple within each of us and within our neighbors amidst the difficulties of life in third-world countries. Ben writes that *"How we live and go about our lives makes all the difference in the world.*" All ten Amazon.com reviews give the book 5 stars. Three months after starting the MPA program, Ben was promoted to Tenant-Based Rental Assistance (TBRA) Administrator & Grant Writer at Every Woman's Place / Webster House Youth Services in Muskegon.

College of Health Professions

Claire E. Dulin, Doctor of Physical Therapy

(B.S., Biomedical Sciences, Western Michigan University, 2009)

Claire has demonstrated a desire to serve the physical therapy profession. She has been an active member of the Michigan Physical Therapy Association (MPTA), serving on the legislative committee which actively communicates with legislators regarding issues pertinent to physical therapy. She was the MPTA Student Representative to the American Physical Therapy Association (APTA) Federal Advocacy Forum held in in Washington, D.C. In the community, Claire volunteered for several different groups. She also serves at the DPT Class of 2013 Community Advocacy Committee Chair, in which she participated in several events including the Mayor's Annual Grand River Clean-up, Angel Tree and Thanksgiving Food Drive. She also volunteered for the GVSU Physical Therapy Pro Bono Clinics in downtown Grand Rapids.

College of Liberal Arts & Sciences

The Cell and Molecular Biology Department has selected two recipients of this year's Excellence in Service to the Community or Profession Award; one who exemplifies service to the profession and one who exemplifies service to the broader community.

 Ehren R. Dueweke, Master of Science in Cell and Molecular Biology (B.A., Chemistry, Kalamazoo College, 2004)

Ehren began the graduate program in Cell and Molecular Biology after earning his Master's degree in Business Administration from GVSU in 2011. Ehren completed an internship at Sustainable Partners LLC (SPART), a small company which specializes in developing "waste to energy strategies" using by-products from other industries to feed an anaerobic digester and produce biogas. Because of his success as an intern, Ehren was asked to remain with SPART after it concluded. Ehren's combination of business talents and biotechnology expertise uniquely suits him to handle the responsibilities that a small start-up company requires of him. His hard work contributes to the State of Michigan's Renewable Energy Goal for 2015, in which 10% of the energy sold by utility companies will be derived from renewable sources.

 Tyler J. Richardson, Master of Science in Cell and Molecular Biology (B.S., Biomedical Sciences and Cell and Molecular Biology, Grand Valley State University, 2010)

Tyler joined the PSM program in Biotechnology two years ago when he already had a company in which he used his technical and artistic skills to develop a series of anatomy flash cards. These flash cards are being developed into an online data base and interactive learning tool that will help aspiring students in the biomedical fields achieve their career goals. He has also developed a laboratory notebook especially designed in layout and materials for use in biotechnology labs. These notebooks are made to preserve data – often the key evidence in intellectual property litigation – and to be used in labs where accidents and spills are a part of the routine. Tyler combined his education and lab experience with his business interests to market successfully two very useful and important teaching and research aids that deserve this recognition.

✤ Jennifer L. Furner, Master of Arts in English

(B.A., English Language and Literature, Grand Valley State University, 2006)

Jennifer has served two years as editorial assistant for *Spring: The EE Cummings Journal*. Her work is invaluable in producing a quality professional journal. Her editing and proofreading experience has also helped her become quite effective in her role as mentor to undergraduate students in our Capstone course. Jennifer also organized and chaired a panel of papers on the topic "Identity and Sacrifice in the Works of Ralph Ellison," presented at the Louisville Conference on Literature and Culture since 1900, University of Louisville, February 23, 2013. She was also a panel moderator at the Michigan College of English Assocation's 2012 Conference in Grand Rapids, MI.

Jennifer is also the recipient of the Graduate Dean's Citation Award for Excellence in Leadership and Service to GVSU from the Department of English.

Kirkhof College of Nursing

***** Erin M. Chillag, Doctor of Nursing Practice

(M.S.N., Nursing, Grand Valley State University, 2008)

Erin is a pediatric nurse practitioner who cares for children from a variety of diverse backgrounds, with many health challenges. With an emphasis on health promotion, she decided to address these issues "head-on" in her dissertation project. The Coordinated Approach To Child Health (CATCH) program is an evidence-based program that promotes healthy eating and activity in children and adolescents. For her project, Erin trained and supervised undergraduate students who learned how to collect the data to evaluate the program's effectiveness. She helped the students learn how to act as role models for the often reserved middle school population, which is traditionally known to be hard to engage in activities sanctioned by adults. In her efforts, Erin has provided a foundation upon which to build future efforts for this school-based health promotion program in Grand Rapids.

GRADUATE DEAN'S CITATION FOR EXCELLENCE IN LEADERSHIP AND SERVICE TO GVSU Winter 2013

College of Community & Public Service

Jennifer A. Jordan, Master of Public Administration

(B.S., Anthropology and Histroy, Central Michigan University, 2011)

During her time as a Graduate Assistant for the Sustainable Community Development Initiative (SCDI), Jennifer worked on numerous projects, including the Pizza Box Program. The pizza box program focuses on composting cardboard pizza boxes, which are very difficult to recycle, given the pizza and other food grease that soaks into the cardboard and can jam up machines. The SCDI started the program to compost the boxes, and since have composted enough boxes to stack three times higher than the Eiffel Tower. She also contributed to the 'How Green R U' program, which involves a questionnaire that helps those in the GVSU community gauge how sustainable they are in their daily lives and gives them ideas on how to be more sustainable. Her supervisor commented that "Jennifer is making a difference and a major impact on the GVSU community."

Jessica K. Doerr, Master of Social Work

(B.A., Liberal Studies, Grand Valley State University, 2006)

Jessica serves as a Research Graduate Assistant for the Traverse City Cohort of the MSW program. She has greatly impacted the operations and completion of tasks at the off-campus site, including her active involvement in a collaborative project to distribute children's literature to at-risk families and promote literacy to at-risk children. She hosted Field Placement Orientation, organized the Hooding Ceremony, and spoke to students at New Student Orientation for the MSW program in Traverse City. With another graduate assistant, she is cowriting a literature review titled "Cohort Learning and Group Think" which will have numerous implications for the cohort group. She also works at Northwestern Michigan College's (NMC) Writing and Reading Center as an Intern Counselor, providing personal counseling services and overseeing judicial affairs to NMC students, as well as promoting psychosocial well-being on campus.

College of Health Professions

Amber M. Lenhart, Doctor of Physical Therapy

(B.S., Movement Science, Grand Valley State University, 2010)

Amber was elected Vice President of the Physical Therapy class of 2013 by her fellow classmates. In the classroom and laboratory setting, Amber took the role of leader. The faculty could always depend on Amber to provide leadership academically, as well as in interpersonal matters. Her communication style is positive, open and effective. Presently she is the co-secretary for the Michigan Physical Therapy Association (MPTA) Student Relations Committee and she has volunteered for MPTA conferences and student conclave events during all three years of her physical therapy education. Having earned her board certification as an Athletic Trainer during the completion of her undergraduate education, Amber worked part time as an athletic trainer for West Michigan area high schools while maintaining academic excellence in the graduate program.

College of Liberal Arts & Sciences

 Charlotte S. Barth, Master of Science in Biostatistics (B.S., Statistics, Grand Valley State University, 2011)

Statistics Department faculty have always been impressed by Charlotte's friendly and professional behavior inside and outside the classroom at GVSU. She is always a leader among her classmates regarding topics of interest to the class and in her group projects. She represented GVSU very well at her 2012 internship at Henry Ford Health in Detroit, where she will be starting a permanent biostatistician position in May 2013. In her two years within the GVSU biostatistics program, Charlotte has been a member of Mu Sigma Rho (the Statistics Honors Society), the Math and Statistics Club (in which she was also the secretary in 2009-2010) and a member of the GVSU Campus Climate Implementation Committee. Her leadership skills were also effectively demonstrated through the development and execution of the scavenger hunt to help celebrate 2013 as the International Year of Statistics, which helped others better understand the positive role of statistics in everyday life.

✤ Jennifer L. Furner, Master of Arts in English

(B.A., English Language and Literature, Grand Valley State University, 2006)

Jennifer supported the graduate program and Department of English through her time completing the Master of Arts program. She served as a teaching assistant, leading discussions with undergraduate students and serving as a dedicated reader and editor for student theses, and the level of response and time she has spent is nothing short of phenomenal. Her level of rigor, insight, and editorial expertise is sophisticated and enormously helpful. Jennifer did all this with great grace and humor, and was always accessible to students. She has shared her growing expertise with GVSU undergraduate students and related her own thesis writing experience with in-class presentations. The faculty noted that her presentations were always of the first order of quality and supported the pedagogical goals for the class.

Kirkhof College of Nursing

***** Kimberly L. Lanning , Doctor of Nursing Practice

(M.S.N., Nursing, Grand Valley State University, 2003)

Kimberly is a certified Family Nurse Practitioner. In her practice role, the issues of transition to independent living that are encountered by our university's undergraduate students were often at the forefront. One of these issues, of great importance to the students' future health and mental health, has been their sexuality. Kim worked with the GVSU Women's Center to adapt an evidence-based program for assisting students in negotiating this sensitive aspect of their lives. Kim's work was a solid fit with initiatives and priorities identified by the Center and its partners in the university community and law enforcement. Kim led a series of sessions that were found to be not only helpful, but significant enough in their impact to lead to word-of-mouth referrals among the attendees to their peers. She has given the university an example of prevention and health promotion that not only addresses educational needs, but also provides tangible skills in addressing important elements of student lives.

GRADUATE DEAN'S CITATION FOR PROMOTING DIVERSITY AND INCLUSION AT GVSU Winter 2013

College of Health Professions

Andrew A. Post, Doctor of Physical Therapy

(B.S., Health Professions, Grand Valley State University, 2010)

Andrew has set a very high standard of excellence and achievement in recognizing and contributing to both intramural and extramural activities that support the betterment of those representing multiple ethnic and racial backgrounds in the greater Grand Rapids communities.

He is a delightful young man with a good heart for people from all walks of life. Andrew was among the first to "sign on" for a Habitat for Humanity project on behalf of the Western District of the Michigan Physical Therapy Association. He provided great energy to a very full and tough day of work on a very cold January day. He has undertaken even more demanding and timeconsuming projects on behalf of First-Hand Aid, a non-profit medical relief organization. He traveled to Cuba multiple times to assist in medical relief efforts and actively assisted with fundraising efforts to provide medical supplies and hygiene items to patients in Cuban hospitals and rural cities.

Andrew participated in the PT Pro Bono Clinic, where he treated and therefore serviced the underserved members of the Grand Rapids community. He has also been a part of youth camp activities, as well as Boy's and Girl's Club organizations. Andrew is obviously someone who sees the importance of being a solid member of the "world community," as well committing himself to his academic endeavors. He is a "star" and a true asset to the PT program and to GVSU. Andrew's humility and his dedication to whatever academic, service, or professional endeavor he undertakes combine to make him one of the most honorable young men the program has ever seen.

GRADUATE STUDENT AWARD OUTSTANDING FACULTY MENTOR AWARDS Winter 2013

Dianne Conrad, Associate Professor of Nursing

Nominated by: Meridell Gracias, Doctor of Nursing Practice

Meridell writes: "Dr. Conrad has personified the role of the DNP for the students both in practice and the academic setting, advocating tirelessly for the DNP students, seeking to connect us with great educational opportunities. These include meetings, on-line activities, speakers, and referenced publications that could be useful. She seeks networking opportunities for enhancement of the students and the profession, such as her establishment of a local DNP organization.

Dr. Conrad has been consistently available and accessible to the DNP students, striving to facilitate good and open communication, and encouraging students to seek her out if she could be of any assistance as we continue our educational journeys. She has been a positive role model as we look to the future after graduation, and inspires the DNP students to remain active, involved, and connected. Her energy and optimism are contagious. She has been a truly outstanding faculty member and mentor!"

Sean Lancaster, Professor of Education

Nominated by: Asma Alharbi, Master of Education

Asma writes: "I have been working with Dr. Lancaster in almost every graduate class. He was helpful for every single step in this program. His empowering attitude is contagiously inspiring. He pushes me to work harder until I do all the progress I can in my program. He makes me believe in my talent even if I struggle with writing in a different language than my native language. Dr. Sean always expresses confidence in my abilities, ensuring me that I can do whatever I wish. He supports me with my work and classes.

As I finish my degree, Dr. Sean recognized my desire to continue my education and did everything that he could to make this possible. His confidence in my abilities and in the value of my research contributions has been tremendously encouraging."

GRADUATE STUDENT AWARD KIMBOKO INCLUSION AWARD Winter 2013

The Graduate Student Association has created the Kimboko Award to recognize Grand Valley faculty who have made significant contributions in outstanding teaching, distinctive scholarship or creative work, or noteworthy service in moving GVSU graduate education toward being a more diverse and inclusive community. The award recognizes the accomplishments of Dr. Priscilla Kimboko, GVSU's first Dean of Graduate Studies, and represents her commitment to these values.

 Dianna Lunsford, Visiting Assistant Professor in Occupational Therapy Nominated by: Stephanie Hovick, Master of Science in Occupational Therapy

Stephanie writes: "Dianna Lunsford has always looked for ways to expose us to various populations so that we will be best prepared for our future careers. The field of occupational therapy allows for a large variety of work settings and populations of people to work with. Through courses Dianna has taught, she brings in people from the community or has us go out into the community to increase our exposure to who lives in the world around us. Through her instruction, she demonstrates professionalism and enthusiasm about the occupational therapy profession as well as her desire for teaching.

Dianna encourages the use of evidence-based interventions and treatment options. This benefits our research knowledge and increases our abilities to find credible sources to substantiate our ideas as well as have support to the work we do with any population we might work with. We have learned about a variety of diagnoses and populations across the lifespan.

Dianna provides service opportunities as another form of her teaching style to help us learn further. For example, during our mental health course that she taught, we served lunch at God's Kitchen. She has also brought community members into class has been a great learning opportunity for us as it allows us exposure to professionals' knowledge that we might otherwise not have. Dianna also shares personal experiences from practicing and learning through stories is a helpful style. It allows information we are learning in class to be connected to actual experiences. "

GRADUATE STUDENT PRESIDENTIAL RESEARCH GRANT RECIPIENTS Fall 2012-Winter 2013

BORGMAN, Andrew, and HODGES, Daniel. College of Liberal Arts & Sciences, Biostatistics.

Title: A Statistical Approach to Modeling Surface Wind Dynamics on Lake Michigan

MADDOX, John. College of Liberal Arts & Sciences, Cell and Molecular Biology. Title: *Effect of AZT R BIBR Compounds on Immortalized Human Cell Line*

ALBRECHT, Nicholas. College of Liberal Arts & Sciences, Biology - Aquatic Sciences. Title: *Muskegon River Juvenile Steelhead Survival and Production: Quantifying Seasonal Thermal Stress*

SINGH, Shambavi. College of Liberal Arts & Sciences, Cell and Molecular Biology. Title: *CD82 and its Role in Regulating and Preventing Prostate Tumor Metastasis*

SNIDER, Michael. College of Liberal Arts & Sciences, Biology - Aquatic Sciences. Title: *Probing the Pigments and Physiology of Modern Cyanobacterial Mats that are Analogs of Life on Early Earth*

OTHER GRADUATE STUDENTS DEMONSTRATING ACADEMIC EXCELLENCE IN WINTER 2013

NIEMEYER AWARD FOR OUTSTANDING GRADUATE STUDENTS

This is a university-wide award honoring the most outstanding graduate students; selection is made by the Provost's Cabinet.

- Todd Cates, Physical Therapy
- Jeffery Clark, Business
- John Gipson, Higher Education
- Meridell Gracias, Nursing

DEPARTMENTAL HONORS 2012-2013

Recognized at the annual Annual Awards Celebration on April 8, 2013.

Seidman College of Business

- ✤ Michele Booms, Accounting
- Michael Birkmeier, Business Administration
- ✤ Jill Patin, Taxation

College of Community & Public Service

- Ryan Edgerle, Criminal Justice
- Molly Thompson, Health Administration
- Heidi McPheeters, Public Administration
- Caryn Vennema, Social Work

College of Education

- Elizabeth Levandoski, Educational Leadership
- ✤ John Gipson, Higher Education
- Elaine Shalla, Instruction and Curriculum
- Erica Beaton, Literacy Studies
- MaryEllen Brocklehurst, School Counseling
- Bobbi Sanders, Special Education

Padnos College of Engineering & Computing

- Byron DeVries, Computer Information Systems
- ✤ Andy Vander Moren, Engineering
- Chris Bretl, Medical and Bioinformatics

College of Health Professions

- Justine Gonzalez Bratt, Occupational Therapy
- Meghann Sikora, Physician Assistant Studies
- ✤ Michelle Giesel, Physical Therapy

College of Liberal Arts & Sciences

- ✤ David Baisch, Biology
- Neil Klinger, Biomedical Sciences
- Marco Benedetti, Biostatistics
- Marian Testori, Cell and Molecular Biology
- Cori Curtis, Communication
- ✤ April Best, English

Kirkhof College of Nursing

- Meridell Gracias, Nursing-Doctorate
- Mariah Nockin, Nursing-Masters

Omicron Delta Kappa (O∆K) National Leadership Honor Society Winter 2013

Omicron Delta Kappa was founded December 3, 1914 at Washington and Lee University in Lexington, Virginia by 15 student and faculty leaders. Now present on more than 300 campuses nationwide, membership in O Δ K is one of the highest honors a college student can receive. Membership is granted to juniors, seniors and graduate students who excel academically and exhibit leadership in at least one of the five phases of campus life:

- Scholarship
- Athletics
- Campus or Community Service, Social and Religious Activities, or Campus Government
- Journalism, Speech, or the Mass Media
- Creative and Performing Arts

Graduate Students inducted into the GVSU Circle of Omicron Delta Kappa in 2012-2013:

Viktoryia Abramenka Attila Bokor Matthew Brenner Michael Jason Breon Lisa A. Britten Kris Cortez Jeffrey T. Domagala Lauren Gilcrest Rachel Gladstone Jimmia Glover Meridell J. Gracias Jamillya Hardley Joseph Anthony Lebioda David Lee Kyle Martin Laura McCulley Shane McGrath Eric Moore Reba Loret Oguntokun Jennifer Oza Angela Lucia Rhoades Jennifer L Stellema Cheng (Joanne) Tan Matthew B. VanderWindt Carolyn Waterstradt Rachael Joy Wilson Brittney Winters Nicholas D. Woodward Lisa Marie Zavesky

GRADUATE STUDENT ASSOCIATION OFFICERS Winter 2013

President: Austin Dean, Business Administration

Vice President: Paul Jabaay, Business Administration

Communications Officer: Nathan Bair, Business Administration

Social Media Officer: May Shabaka, Business Administration

Finance Officer: Renata Horvath, Public Administration

Administrative Officer: Timothy Ramnarine, Cell and Molecular Biology

Graduate Council Student Elected Representatives: Paul Jabaay, Business Administration Hilary Powsner, Business Administration

Advisors:

Steven Lipnicki, Assistant Dean of Students Dr. John Stevenson, Associate Dean of Graduate Studies Michelle Burke, Office of Student Life

GRADUATE COUNCIL OFFICERS Winter 2013

Chair: Dr. Mark Luttenton, College of Liberal Arts and Sciences

Vice-Chair: Dr. Aaron Lowen, Seidman College of Business

Policy Subcommittee Chair: Dr. Aaron Lowen, Seidman College of Business

Curriculum Subcommittee Chair:

Dr. Mark Staves, College of Liberal Arts and Sciences



Dr. Jeffrey A. Potteiger, Dean of Graduate Studies

Dr. John R. Stevenson, Associate Dean of Graduate Studies

Irene Fountain, Administrative Assistant

Jennifer Palm, Office Coordinator

Graduate Assistants:

Heather De Nio, Public Administration Gayane Kabalyan, Computer Information Systems Derek Knight, Business Administration Kelley Senkowski, Educational Technology

Student Assistant: Destine Hatcher, Psychology (undergraduate)

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