

# GRADUATE OUTSTANDING STUDENTS



## OPEN LETTER TO ALL GRADUATE STUDENTS AT CALIFORNIA STATE UNIVERSITY, FRESNO

In celebration of Graduate Student Recognition Week, I am pleased to express my appreciation for the many contributions to the university and the community that you—our graduate students—make as you strive towards your academic goals. As graduate students, you are actively involved in pursuing new arenas of knowledge in all disciplines. The following examples illustrate a few of the ways you are directly contributing to our university's mission and to our community.

My congratulations to these scholars, as well as the many others of you who help keep our university at the forefront of achievement in higher education. I encourage you to join us at the Graduate Research and Creative Activities Symposium in the Henry Madden Library on Thursday, May 3, from 1-8 p.m., where you will see more excellent examples of graduate student work.

Congratulations to the following students:

<a href="#">Abigail Arij</a>	<a href="#">Aaron Tucker</a>	<a href="#">Anitra Graves</a>	<a href="#">Angelique Duvet-Tovar</a>	<a href="#">Bill Betts</a>
<a href="#">Brad Powers</a>	<a href="#">Brent Wilson</a>	<a href="#">Cameron Aveson</a>	<a href="#">Chris Powell</a>	<a href="#">Diego Lopez</a>
<a href="#">Douglas Hughes</a>	<a href="#">Eduardo Alvarez</a>	<a href="#">Eric Jennings</a>	<a href="#">Hazel Antaramian-Hofman</a>	<a href="#">Gerald Rude</a>
<a href="#">Karina Lara</a>	<a href="#">Kennedy Vue</a>	<a href="#">Kristin Baer</a>	<a href="#">Krysten Ambler</a>	<a href="#">Kurt Heisel</a>
<a href="#">Jennifer Tipton</a>	<a href="#">Jonathan Roveto</a>	<a href="#">Joshua Conroe</a>	<a href="#">Laurie Jones</a>	<a href="#">Loretta French</a>
<a href="#">Matt Emmett</a>	<a href="#">Marcelia Black</a>	<a href="#">Michael Downing</a>	<a href="#">Michael Duncan</a>	<a href="#">Michael Gerald</a>
<a href="#">Michael Watkins</a>	<a href="#">Nakkiran Kaur Sandhu</a>	<a href="#">Nathalia Mourad Moretti</a>	<a href="#">Robyne Hamme</a>	<a href="#">Ryan Melvin</a>
<a href="#">Sally Lopez</a>	<a href="#">Sarika Ranjan</a>	<a href="#">Shannon Mills</a>	<a href="#">Sheenam</a>	<a href="#">Steve Wilburn</a>
<a href="#">Susan Varags Rizo</a>	<a href="#">Teri Junge</a>	<a href="#">Varun Dev Maradana</a>		

Sincerely,

Sharon Brown-Welty, Dean  
Division of Graduate Studies

**GRADUATE STUDENT RECOGNITION WEEK**  
*April 30-May 4, 2012*

***Art faculty within the Department of Art and Design would like to recognize Hazel Hofman.***

Hazel Antaramian-Hofman is an art history graduate student whose original and innovative scholarship bridges diverse fields-including art history, anthropology, and women's studies. Her thesis, "An Interpretation of Textile Wealth in the Eleventh-Century Armenian Miniature Family Portrait of King Gagik-Abas of Kars," represents a significant contribution to the study of medieval Armenian art. Hazel has mastered the literature of this field and consulted and corresponded with some of its leading scholars in the preparation of her thesis. Unprecedented for a master's in art history student at Fresno State, Hazel had a paper based on her thesis research published in a peer-reviewed scholarly publication, The Journal of the Society for Armenian Studies. She also presented preliminary results of her thesis research at several national professional conferences, including the 2010 Annual Conference of the College Art Association. Equally unprecedented, Hazel was selected to serve on the Student and Emerging Professional Committee of the College Art Association.

***Business Administration faculty within the Craig School of Business would like to recognize Bill Betts & Aaron Tucker.***

Bill Betts- is a graduating eMBA student. He is Vice President in a significant local business, Betts Spring (\$50M in sales), that relocated to Fresno several years ago from the Bay Area. It is a 144 year old family business and Bill is potentially the next person to run it. He has a 3.90 GPA and is one of our Dean's Medalist Finalist. Not only is he in a high level leadership position but he also works with the Girls and Boys Club and with the Institute for Family Business (CSUF program).

Aaron Tucker- is a traditional MBA student. Aaron has a 3.5 GPA, is a new father, president of our MBA student group, works on a social media project for the MBA program and is starting a project for the Ag. Department (business plan for a new venture) in addition to working full time. He has been a missionary in the past and he is a very well rounded person.

***Chemistry faculty within the Department of Chemistry would like to recognize Kurt Heisel & Kennedy Vu.***

Kurt's project is to understand the conformational landscape in intrinsically disordered proteins (IDPs), a recently discovered class of proteins that function uniquely without adopting a particular structure. These proteins are important in many biological systems such as binding and regulation. For his thesis he has been working on one such IDP from the year nucleopore complex (NPC). Because of the inherently unstructured nature of these proteins, most of the conventional method of studying these proteins tends to fail. Therefore Kurt has devised an interesting approach to tackle the problem; even though these proteins are unstructured in water, it does form a well-defined 3D structure in DMSO. Kurt first determined the structure in DMSO using standard multi-dimensional NMR methods and systematically performed experiments by changing the ratio of water: DMSO to determine how the conformational preferences are altered in the process. With minimal guidance Kurt was able to complete the work in a methodical manner that leads to a clear residue specific understanding on how IDPs alter their conformational ensembles in water. This work is expected to be published in a high impact journal while he completes his thesis next semester.

Kurt's presentation skills are also strong and in demand for teaching some of the undergraduate general chemistry classes. He delivers clear, enthusiastic and in-depth seminars. The ground work and literature review he did to present a departmental seminar that is part of the graduate curriculum has led to the publication of a review article on 'NMR Chromatography' to Am. J. Analytical Chemistry. These are just few highlights of his accomplishments as a student, teaching assistant and researcher.

Kennedy joined the M.S. Chemistry program in Fall 2011 after earning undergraduate degrees in both Chemistry and Public Health at Fresno State, and his research draws on his training in both of these disciplines. His thesis research involves the study of reactive oxygen species (ROS) produced in chemical reactions involving particulate matter pollution and chemicals present in lung fluid. The work will help us to understand the relationship between exposure to particulate matter and adverse health impacts. This is particularly relevant to the region since levels of particulate matter are high in Central California during the winter, and have been linked to elevated incidences of asthma. Kennedy is already the co-author of two published/accepted peer-reviewed journal articles and a third is currently in preparation. He has also presented his work at several regional and national meetings.

***Communication faculty within the Department of Communication would like to recognize Jennifer Tipton.***

Ms. Tipton successfully defended her M.A. thesis on March 7, 2012. Her study examines President Obama's 2009 address authorizing federal funding of embryonic stem cell research for the speech's potential to contribute constructively to robust public deliberation about this controversial issue. The insight on public deliberation regarding stem cell science offered by Ms. Tipton's thesis extends beyond an assessment of the rhetorical techniques that make Obama's speech potentially persuasive to demonstrate the ways in which the president's arguments actually discourage future public engagement with the issue. Ms. Tipton argues that such quietude is unhealthy for a democratic system that requires ongoing interrogation of public policy questions rather than the complacency encouraged by consensus. Her research has been competitively selected for presentation at the 2011 National Communication Association and the 2012 Western States Communication Association. Jennifer Tipton also serves as the Vice-President of the Communication Graduate Student Association at Fresno State.

***Communicative Disorders and Deaf Studies faculty within the Department of Communicative Disorders and Deaf Studies would like to recognize Krysten Ambler.***

Krysten first caught my attention when she completed an in-class essay examination on typical child language development in a graduate seminar I taught on child language disorders. She turned in an excellent, well-organized essay, demonstrating exceptionally good writing proficiency. I asked her if she would consider completing a thesis as her culminating experience leading to her master's degree, and she agreed to do so. She helped me with a line of research I have been interested in pursuing to investigate the efficacy of techniques to help children with language disorders remediate their oral language deficits while simultaneously supporting their emerging literacy skills.

The experimental study she devised and carried out showed good results in teaching language structures to children through an interactive method of shared storybook reading. As I knew it would be, her thesis was well-written and concise. She and I will be presenting the findings from this study through poster presentations at the upcoming annual conventions of the California Speech-Language-Hearing Association and the Association for Behavior Analysis International.



***Computer Science faculty within the Department of Computer Science would like to recognize Ryan Melvin.***

Mr. Melvin has been working as a teacher's assistant for the CSCI 5 course (Computer and Applications) for the Fall 2011 and Spring 2012 semesters. He also worked as a graduate assistant (Grader) for the CSCI 150 course (Introduction to Software Engineering) for the Fall 2011 semester.

In addition to working as a TA, this semester he also worked as a research assistant for Dr. Ming Li to research Wireless Body Area Sensor Networks (WBAN) for the IEEE 802.15.6 standard, which has not yet been published. In a WBAN, sensors are placed throughout the human body to report vital signs (e.g., heart rate) to a coordinator. Because 802.15.6 is a relatively new standard that is still under development, there have not been many papers published that have simulated the operation of WBANS. One of our motivations in performing this research is to develop a C++ program that will simulate the operation and test the performance of the sensor network, which will hopefully stimulate more research in the area and reveal ways in which the 802.15.6 standard can be improved. It is also our goal that our research will lead to more papers being published on the 802.15.6 standard and sensor networks.

In a sensor network, only one sensor can send information to the coordinator at a time; if multiple sensors attempt to transmit at the same time, it will result in a collision. Two techniques are used to solve this problem: Polling and CSMA/CA (Carrier Sense Multiple Access with Collision Avoidance). When the sensor network is operating in polling mode, the coordinator will periodically poll each sensor to see if it has information to send; if it does, then the sensor has exclusive access to the channel and sends the information to the coordinator. When the sensor network is operating in CSMA/CA mode, a sensor will transmit information to the coordinator if the channel is idle for a certain amount of time, called SIFS (Short Inter-Frame Space) time. If the channel is busy, then all sensors that need to transmit will randomly select a backoff counter from the range  $[1, CW]$ , where  $CW$  is the size of the contention window. Every time the channel is idle, a sensor will decrement its backoff counter by one. When the backoff counter reaches zero, the sensor can send its information to the coordinator if the channel is idle; if the channel is busy, then the  $CW$  value is doubled, and the contention process continues with the random selection of a new backoff counter from the range  $[1, CW]$ . In this way collisions are avoided, and the sensor that chooses the smallest backoff counter wins the contention for the channel.



***English faculty within the Department of English would like to recognize Cameron Aveson.***

Cameron Aveson is our pick for the outstanding graduate student representative. Cameron is a native of Southern California, but moved up to the Central Valley almost 20 years ago when he started working for the National Park Service in Kings Canyon where he has been constructing and maintaining trails. In 2006 he transferred to CSU Fresno from Reedley Community College and completed his BA in English in 2010. He's currently in his 2<sup>nd</sup> year of the Poetry MFA program. He lives in the foothills of the Sierra Nevada with his wife and 6 month old daughter.

Publications (poems):

- Blood Orange Review. - Clearing Trail, Leaving the Backcountry
- Crab Creek Review. - Finding Randy in Window Creek (contest winner), The Perfect Sentence (honorable mention).
- The Meadow. - Outside the Starlight Theater, At the Mouth of Santa Elena Canyon, Watching Daytime Television with my Mom, On the Steps of the Closed Bar.
- Monkey Puzzle Magazine. - After Work in LeConte Canyon
- Meta4magazine. - Clearing a Rockslide on Mather Pass

Honors and awards.

- 2009/2010 Larry Levis Memorial Prize
- 2011 Hanzlicek Scholarship
- 2010 Nominated for the A & H Dean's Medal as an undergraduate

April 30, 2012



***Curriculum & Instruction faculty within the Department of Curriculum & Instruction would like to recognize Teri Junge & Douglas Hughes.***

Teri Junge recently completed her Master's of Arts in Education with an option in Curriculum and Instruction. During her coursework, she distinguished herself as a scholar, writer, and mentor. Her project had the requisite five chapters, but she also wrote an eight chapter pharmacology textbook for an appendix. She has combined her science degree with her education degree by developing programs, mentoring students, and writing curriculum. Currently, she is Program Director for the Surgical Technology Program at San Joaquin Valley College. Ms. Junge is a Certified Surgical Technologist and Certified Surgical First Assistant. She is an excellent representative of our graduate programs.

Doug Hughes, a graduate of the M.A. in Education, Curriculum and Instruction option program, with a 4.00 GPA. He is a surgical technology educator and Certified Surgical First Assistant with a diverse health science background. His clinical experience includes specialization in surgical specialty areas spanning general surgery, orthopedics, obstetrics, gynecology, and spinal procedures. As an educator, he has planned and successfully implemented dynamic, student-centered, and technology-driven curriculum for courses in surgical technology theory, anatomy, physiology, pharmacology, microbiology, and the practical application of sterile and aseptic techniques. As a mentor, he has helped many students achieve their professional goals by overcoming personal obstacles, gaining intrinsic motivation, and understanding the link between hard work and determination and success. Mr. Hughes has also been instrumental in the advancement of the field of surgical assisting and has served the profession in several capacities.

Doug has excelled in scholarship. He has published six refereed journal articles, all as sole author, a book chapter, a book, and an online booklet. He has developed five professional websites. In his Master's Project, he developed innovative progressive and technology-infused curriculum for his surgical technology students, implemented it, and evaluated the comparative performance of the students. His results showed both significant and dramatic improvements in their performance compared to traditional instructional methods.

His service to the profession and the community includes the Association of Surgical Assistants (served as Treasurer, member of the Board of Directors, and currently as Vice President), the National Board of Surgical Technology and Surgical Assisting (served as Committee Member and as Examination Item Writer), Surgical Assistant Resource (as Webmaster and Administrator), Children's Hospital Central California (Technician Volunteer), Boy Scouts of America (as Scout Leader), the National Kidney Foundation (as a Phlebotomist), as well as multiple roles for the Church of Jesus Christ of Latter-day Saints.

Mr. Hughes has received the Galaxy Star Award on three occasions from the Association of Surgical Technologists. He has recently been appointed Program Director of Surgical Technology at Concorde Career College in Portland, Oregon.

***Early Childhood Education faculty within the Department of Literacy and Early Education would like to recognize Karina Lara, Sally Lopez, Sarika Ranjan, & Anitra Graves.***



ECE Graduate (Fall 2011), Karina Lara demonstrates outstanding ability in her writing, research and use of technology. She is able to build rapport with others including diverse families and partner to create interdisciplinary connections with service providers and agencies working with families in the community. She is caring, compassionate and mature in her interactions and in her approach to complex educational and social problems. Karina Lara's important MA project focused on efforts to create more equitable patterns of achievement between Hispanic and non-Hispanic students by increasing the knowledge and involvement of Hispanic parents. Her research examined the effectiveness of parent education courses on the knowledge and involvement of Hispanic parent participants with

children in grades K-1 in a rural California elementary school. Her findings indicated that parent participation in the courses was associated with significant gains in parental knowledge and school- and home-based involvement to boost Hispanic student achievement in California schools.

ECE Graduate (Fall 2011) Sally Lopez is a caring, compassionate and highly skilled ECE professional. She is expert in her interactions with children, support staff, other teachers and families. The stimulating learning environment she offers as a preschool teacher includes rich experiences, effective use of learning centers and worthwhile large and small group activities. Her important MA project focused on how to improve teacher-child interactions with English learners (EL) in the preschool classroom. Her study included a private preschool and a public preschool serving low-income families in Fresno. Her study identifies successful strategies for teaching EL preschool children to assist them in acquiring English and most of all, becoming full participants in the classroom community.

ECE Graduate (Fall 2011) Sarika Ranjan's study of immigrant families and children's adjustment to school found that most immigrants live relatively difficult lives as they adjust to new communities and new cultures. Immigrant children are exposed to many challenges in their classrooms like the language barrier; cultural and religious barriers; social alienation; differences in teaching/learning methods; and the loss of existing friends/social circle. Her results also indicated that a number of these children suffer from socio-emotional problems such as: confused or hurtful feelings at times leading to violence; struggle in relationships; frustration and depression; inability to learn effectively. To overcome these problems, Ms. Ranjan suggests that socio emotional learning (SEL) based programs may help develop socio-emotional competence and reduce behavioral problems of immigrant children.

ECE Graduate (Fall 2011) Anitra Graves is a Head Start administrator committed to enhancing the quality of services to children and families. Her project examines the potential benefits of the "shared reading" experience for improving parent and child interactions while reading stories. Parent and child shared reading provides an opportunity for parent's to develop children's interests and literacy abilities while reading to them. During a five-week program at a local library, parents received weekly guidance on shared reading. By modeling a variety of strategies for increasing the quality of the dialogue, increasing feedback, asking questions and providing other language experience activities, the literacy experiences of the families and parent-child relationship during reading were significantly improved. As a result of her research, Ms. Graves intends to include more family literacy activities in the Head Start program.



***Educational Research and Administration faculty within the Department of Educational Research and Administration would like to recognize Eric Jennings.***

Eric Jennings is in the final semester of the Educational Leadership and Administration program. He was elected as the President of the student charter of the Association of California School Administrators and has organized, with his fellow board members, two major educational leadership conferences for the 120+ students in the program. Eric has shown exemplary leadership of the student charter and is an excellent student.

***Engineering faculty within the Department of Electrical and Computer Engineering would like to recognize Ms. Nakkiran Kaur Sandhu.***

I am introducing to you one outstanding graduate student in electrical and computer engineering to be recognized during the graduate student recognition week. This student is Ms. Nakkiran Kaur Sandhu who received the Gold Medalist Award from Punjab Technical University before joining to ECE department in the fall of 2009. She has shown remarkable achievements on her study work and many different projects, also as an internship, working in Juniper Network a company in the business of network and engineering innovation.

**Project Title: Programmable Built in Self Test Technique for Memory**

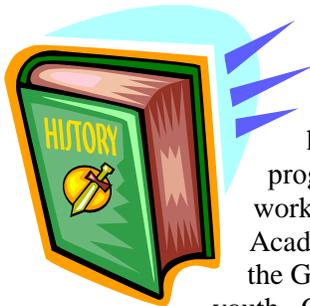
Objective: Flash memory is a non-volatile semiconductor memories used for portable electronic devices. With the increase in complexity of digital circuits, more transistors and functionalities are packed on same chip of nearly the same size; diagnosis and testability have become inevitable part of electronic system design as the system quality depends very much on the quality of testing. Testing of a complex system designed on a chip (SOC) with different and often deeply embedded logic cores and memories faces new test requirements in on-chip test and diagnosis capabilities. The embedded cores are obviously not accessible from primary ports, and therefore some design for testability (DFT) and/or built-in self-test (BIST) techniques have become effective solutions for VLSI testing. Advanced BIST applications can reduce the test manufacturing cost and improve the test quality providing at-speed testing capability by using pseudorandom and deterministic test patterns.

The project aims of achieving high fault coverage by implementing programmable built in self test for flash memory. As the most common used scheme March Algorithm would be studied, discussed and implemented.

Tools: The proposed BIST architecture will be implemented using Altera tools (Quartus, SOPC builder) and Synopsys tools (Tetramax ATPG, Design Compiler and VCS) using a distributed BIST approach.

***English faculty within the Department of English would like to recognize Kristin Baer.***

Kristin Baer received her BA from Fresno State, where she graduated Magna Cum Laude and on the President's List. She has completed her course work and has begun drafting the first two chapters of her thesis, which she hopes to complete this summer. Kristin has worked as a Teaching Associate in the First-Year writing program and is known as one of the best graduate tutors in the Graduate Writing Studio.



***History faculty within the Department of History would like to recognize Angelique Duvet-Tovar.***

Angelique Duvet-Tovar has excelled in every aspect of our graduate program. She has maintained a perfect 4.0 GPA in all of her coursework and produced one of our program's finest theses in recent years. Even more impressive, she did all of this while working full-time as a teacher in Sanger, where she also coaches both the school's Academic Decathlon and History Day teams. Her thesis research examines the impact of the German occupation and Vichy propaganda and policies on a generation of French youth. Our students rarely take on such topics, due to the language requirements and limited access to primary source material. Angelique, however, is bilingual and was able to conduct original research in French archives. She also completed over a dozen oral interviews with French men and women who lived under the Vichy regime to provide greater perspective for understanding this turbulent period in French history. It exemplifies the kind of original research and analysis that is often achieved in PhD dissertations, but rarely in MA theses. Angelique is one of our department's very brightest and most committed students, and she deserves to be recognized for this.

***Industrial Technology faculty within the Department of Industrial Technology would like to recognize Varun Dev Maradana & Sheenam.***

Varun Dev Maradana graduated from our graduate program (MS IT) in Fall 2011 with a GPA of 3.45. Varun was one of the more inquisitive students in the classroom and always had probing questions related to the application of theory in real world. He also enhanced his skills by venturing beyond the classroom and getting certified by professional societies. In his final semester, he worked as an Intern at Netafim, Inc. where he was involved in implementing lean manufacturing principles to reduce wastes on one of their production lines. His work there was really impressive (resulted in significant savings to the company) and the company offered him a full-time position. Varun was also very active outside of classroom and put in significant efforts in the student club activities.

Sheenam is an international student. She did BS in Bio-medical Engineering in Maharshi Dayanand University, India during 2005-9 and then came to CSU Fresno as a Master's student in Industrial Technology in Fall 2010; Sheenam had received tuition waiver for one semester for which she is obliged to CSU Fresno. Sheenam is a bright and hardworking student. Her final GPA at CSU Fresno is 4.0. Her project supervisor is Dr. N. P. Mahalik. At Fresno State she has made 3 presentations: one at Central California Research Symposium 2010; one poster presentation at the American Society for Agricultural and Biological Engineers, California-Nevada session at Tulare in 2010 (where she won a prize); and the third one is at Jordan College of Agricultural Sciences and Technology Centennial Celebration Workshop poster presentation at CSU Fresno in May 2011. Her area of research is on bio-inspired data analysis and decision making methods for highly automated systems. Out of her MS Project work, she has submitted a paper to the International Journal of Computational Vision and Robotics (IJCVR), Inderscience. Her objective is to gain work experience for at least 2 years and then pursue for higher studies leading to Ph.D. degree. She wants to be a research manager.

***Kinesiology faculty within the Department of Kinesiology would like to recognize Matt Emmett.***

Mr. Matthew Emmett is an international graduate student from England. Matt selected Fresno State specifically to pursue advanced study and research on sport coaching effectiveness. In his thesis he completed a unique applied research study with a highly successful collegiate sport coach. Matt conducted a systematic analysis of the coach's teaching profile using a novel observation instrument that captures both lesson design and coach verbal behaviors. Matt's research has been presented at regional, state, and national conferences and several scientific manuscripts are in preparation. In addition to his outstanding research contributions, Matt has served as a teaching assistant in the Kinesiology department and a volunteer tennis coach. Matt aspires to continue his training by pursuing a doctoral degree at the University of Queensland in Australia.



April 30, 2012



***Mathematics faculty within the Department of Mathematics would like to recognize Brad Powers and Michael Watkins.***

Brad Powers. - Good student, active not only on the courses he has taken but also in other activities- such as Math Field Day. He is one of our TA's. He cares about teaching for our department. He has been invited to Technology Day to present on making interactive white boards from regular boards on budget for teachers. He was a guest speaker in one of our graduate courses, where he introduced a type of non-Euclidean geometry using GeoGebra. A Noyce/FRESTEF fellow since August 2010, which means that he got his teaching credential while doing his Masters. Part of the FUSD transition to teaching program. Will present a dynamic poster at the Graduate Symposium.

Michael Watkins. - Our department's Outstanding Graduate Student. 4.0 GPA and nominated to Outstanding Project Award. He is also our nominee to the Dean's medal. Doing his student teaching while working on his project. He is currently teaching at McLane High School. A Noyce/FRESTEF fellow since August 2010, which means that he got his teaching credential while doing his Masters. Part of the FUSD transition to teaching program. Will present his project at the Graduate symposium

***Music faculty within the Department of Music would like to recognize Michael Downing & Shannon Mills.***

Mr. Michael Downing is an exceptionally gifted musician who has honed his craft as a percussionist to an extremely high level. In the past few years Michael has won two professional orchestral percussion auditions, Sacramento Philharmonic and Stockton Symphony. In March he performed the premiere of a double concerto for percussion and orchestra by Avner Dorman titled Uzu and Muzu from Kakaruzu with the Stockton Symphony. This is quite an honor considering Mr. Dorman is getting international praise for his first double percussion concerto *Perfumes, Spices, Toxins!*, a work that is being performed by major orchestras worldwide. He also regularly performs with local and regional professional orchestras such as the Fresno Philharmonic, Orpheus Chamber Ensemble, and the Music in the Mountains Summer Festival Orchestra in Nevada City, California. As a leader in the community he is the Percussion Director at University High School, where he is sharing his vast knowledge of concert percussion with young percussionists. As a member of the Percussive Arts Society (an international organization), he is serving on the California Chapter Competition Committee, which is actively reinstating a statewide competition that flourished in the 1970s. He has collaborated with multiple faculty in the Department of Music, including premiere performances of works by Dr. Benjamin Boone (*Chasing Tweetie for Percussion Ensemble*) and Dr. Kenneth Froelich (*Neurotica for Solo Flute and Three Percussion*, which featured Dr. Teresa Beaman, and *Accidental Migration for Solo Marimba and Percussion Ensemble*, which featured Dr. Matthew Darling). As a teaching assistant, Mr. Downing has successfully taught a fundamental music course each semester since Fall 2010.



Canadian Soprano Shannon Mills recently performed an outstanding graduate recital; the culminating event in two years of exceptional graduate study at Fresno State. While excelling in her course work she has studied the music of Monteverdi and Italian Opera which resulted in a study trip to Italy last summer. She also studied and sang the work of Claude Debussy through his work, *Ariettes oubliées*. Shannon has sung major roles in all of the Fresno State Opera's productions including full roles with orchestra starting with Amahl and the Night Visitors in 2011 and ending her time here at Fresno State with a lead role in the triumphant Fresno State production of *La Boheme*. She was also selected as one of the singers to work with soprano Isabel Bayrakdarian when the famous singer visited Fresno State to give a Masterclass. Earlier in the year Shannon performed auditions in Vancouver and will perform this coming summer in San Francisco appearing as Madame Lidoine the new prioress in *Dialogues of the Carmelites* by Francis Poulenc. She looks forward to singing the National Anthem at Fresno State's 2012 Commencement Ceremony.



***Physical Therapy faculty within the Department of Physical Therapy would like to recognize Chris Powell.***

The Department of Physical Therapy would like to recognize Chris Powell, an outstanding graduate physical therapy student. Chris has been a quiet, yet powerful leader in the Class of 2012. In the past 3 years, Chris has volunteered extensively for department fundraisers and events, donated his time to assist faculty with classroom lab instruction, and has participated in local, state and national physical therapy meetings.

When one envisions a successful graduate student, Chris Powell comes to mind. While Chris is not the most vocal student, his positive actions speak so much louder than any words. This has become fully apparent this past academic year as Chris began his journey towards the joint Doctorate of Physical Therapy. While taking a full academic class load, Chris assisted in an entry-level Master's student physical therapy lab. Lab sessions met two times per week, one-and-a-half hours at each meeting. Chris not only attended those labs and assisted in lab instruction, he would routinely stay late, or come in early, to assist the students. While these "extra" hours of instruction were not required, Chris made it a point to meet, and often times exceed, the needs/requests of the students. In addition, Chris volunteered his time in another lab class due to his passion for Manual Physical Therapy. Once again, Chris's dedication and work ethic far exceeded expectations.

In all honesty, we do not believe Chris has abstained from volunteering at a physical therapy department event the past 3 years. He is often the first one to set-up for on-site events, and on more than one occasion, he is the only student who assists with the clean-up. Beyond the physical act of volunteering, Chris's attitude and professionalism at events clearly represents all the characteristics of an exemplary graduate student.

Chris has been actively involved in faculty research projects. His first 2 years of the program he spent hours poolside at local high schools collecting data on both female and male high school swimmers. This Doctoral year, Chris is once again pool side, as he is looking at the effect of a dry-land exercise intervention with high school swimmers.

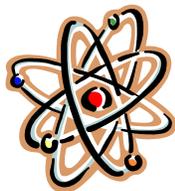
Chris's professional goals are to practice physical therapy in an outpatient setting and become an independent practitioner. With his strong work ethic, ambition, maturity and intelligence there is no doubt he will aspire us all in his future endeavors.

***Physics faculty within the Department of Physics would like to recognize Steve Wilburn, Jonathan Roveto, Brent Wilson, Michael Duncan & Gerald Rude***

Steve Wilburn (Adviser: Dr. Douglas Singleton). Steve's thesis - entitled "Violations of the Equivalence Principle via Quantum Predictions" - was nominated for the Outstanding Thesis Award.

Steve's thesis involves advanced concepts in general relativistic gravitation and quantum field theory that are not taught in regular courses at the MS level. Steve's work argues that observers at rest in a gravitational field may be distinguished from accelerated observers in flat spacetime (that is, in the absence of gravitation) by comparing the Hawking and Unruh temperatures they would measure. Although very abstract and probably out of reach for experiments in the foreseeable future, the topics of Hawking and Unruh temperatures, black hole entropy, and quantum field theory near black hole event horizons is of considerable theoretical interest. Indeed, a complete understanding of these phenomena is considered by many leaders in the field as an indispensable key to the still elusive theory of quantum gravity. Together with his adviser, Dr. Singleton, Steve led the way to a publication in Physical Review Letters, "Hawking Radiation, Unruh Radiation, and the Equivalence Principle", Phys. Rev. Lett. 107, 081102 (2011). Steve has given several talks on these results: in our department colloquium series, at two APS meetings, and at the Xth International Conference on Gravitation, Astrophysics and Cosmology (IGAC10) in Vietnam last December. He is a gifted speaker, easily

ranking among the best I have seen, even if the sample includes seasoned professionals at every major conference I've attended. His research and communication skills have been recognized by the APS with the 2011 Kennedy Reed Award for best theoretical research (1st Prize tie with Thomas E. Baker from CSU Long Beach).



Jonathan Roveto (Adviser: Dr. Gerardo Munoz). Jonathan is our graduate outstanding student nominee. His thesis, "Challenging Entropic Gravity", dealt with Erik Verlinde's entropic gravity proposal (E. Verlinde, On the origin of gravity and the laws of Newton). Jonathan was able to show that Verlinde's claim that Newtonian gravity and Einstein's equation follow in a unique manner from thermodynamic and holographic assumptions is not warranted. He successfully defended his thesis on December 9, 2011, and the results are currently being prepared for publication. Jonathan presented his results at the American Physical Society (APS) conference at the Stanford Linear Accelerator Center (SLAC) on November 11-12, 2011; he will also give a talk on his thesis at the April 2012 Meeting of the APS in Atlanta, GA. In addition, Jonathan has done work in astrophysics with Professor Fred Ringwald. This work was summarized in two papers: Ringwald, F. A., Rude, G. D. II, Roveto, J. J., Khamvongsa, K. S., "The Photometric Period and Variability of the Cataclysmic Variable V849 Herculis (PG 1633+115)", which has been accepted for publication in *New Astronomy*, and Ringwald, F. A., Velasco, K., Roveto, J. J., & Meyers, M. E. "The Orbital Period and Negative Superhumps of the Nova-Like Cataclysmic Variable V378 Pegasi", *New Astronomy*, volume 17, pages 38-42 (2012).

But academic achievement does not give a full picture in Jonathan's case. Just as important, in my opinion, is the initiative he displays in finding his own problems and questions, in attending our informal theory group meetings, and in suggesting activities such as recruitment trips, contacts with local K-12 teachers, and visits to schools to promote science in the community. His interest in teaching is apparent, having served as one of our best Teaching Associates, and by his intense involvement in his current job as an Adjunct Faculty member at West Hills Community College in Lemoore, where he has developed syllabi and overall course structures, and administered all grades for Physics and Physical Science courses. Jonathan's next goal is a Ph.D. in plasma physics. He will pursue that goal at the Georgia Institute of Technology starting next fall.

Brent Wilson (Adviser: Dr. Yongsheng Gao). Brent completed his MS work at Fresno State with a thesis entitled "Searches for W and Z bosons from first ATLAS data". ATLAS refers to one of the main particle detectors at the LHC collider at CERN - the world's leading high-energy physics facility - in Geneva, Switzerland. He has given talks based on his research at several venues, including the Central California Research Symposium, where he won the "Best Graduate Student Oral Presentation" award. In addition to his teaching experience as a TA at Fresno State, Brent has acquired an invaluable research experience obtained at the premier high-energy physics laboratory in the world - a rare combination at the MS level.

Michael Duncan (Adviser: Dr. Douglas Singleton). Mike's thesis, "Solutions to Gravity in 2+1 Dimensions" investigates solutions to general relativity in a 3-dimensional world (two spatial dimensions and one time dimension). Although our universe is four-dimensional, studying gravity in lower-dimensional models is attractive as a way of avoiding some of the complications of the full theory while still producing valuable insights into various unresolved aspects of cosmology, quantum gravity, and other issues. Previous work by Mike (in collaboration with Drs. Singleton and Mirzakov) on an entropic derivation of Newton's second law was published in *Physics Letters B* (*Physics Letters B* 703 (2011) 516-518).

In addition to his duties as a TA, Michael has been helping Don Williams, one of our lecturers, with outreach activities targeting local schools. Although this is part of the department's official outreach efforts, Michael is participating strictly as a volunteer: he is not getting compensation or credit of any sort for all the hours he has invested in the project.

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Michael traveled to Geneva, Switzerland last summer to do research at the CERN (The European Organization for Nuclear Research) laboratory. This is a fantastic opportunity for a young physics student, as this laboratory is widely expected to be the world's premier high-energy facility for decades to come. Dr. Gao, our experimental high-energy physics faculty member, selected Michael for both his enthusiasm and promise in physics. Michael's future plans are centered on a Ph.D. in theoretical physics.

Michael Duncan's thesis work focused on examining solutions to Einstein's theory of general relativity in 2+1 dimensions (i.e. 2 spatial and 1 time dimension rather than the 3 spatial dimensions and 1 time dimensions of the real world). The motivation for studying general relativity in one dimension lower than reality comes from the hope that in the simpler form of general relativity one can discover interesting phenomena that will provide a guide to investigating the more complex form of 3+1 general relativity.

Michael also studied a recent alternative theory of gravity called 'entropic gravity' in which gravity is not a fundamental interaction but emerges from some underlying theory much like macroscopic entropy is an emergent phenomenon from some more fundamental microscopic phenomenon. Michael wrote a paper on this subject which has been published (Physics Letters B Volume 703, pgs. 516-518 (2011)) and he has given several talks on this paper at meetings and conferences such as the American Physics Society CA-section meeting in November of 2011 in Stanford.



Gerald Rude (Adviser: Dr. Fred Ringwald). Jerry is currently working on his thesis with Dr. Ringwald. Last January he traveled to the 219<sup>th</sup> meeting of the American Astronomical Society in Austin, Texas to present a research poster on waves in stellar accretion disks, carried out with Fresno State's telescope at the Sierra Remote Observatories under the supervision of Dr. Ringwald. The Physics Department faculty recently voted (unanimously) to nominate Jerry for the Outstanding TA Award from the American Association of Physics

Teachers (AAPT). Jerry Rude's thesis is about waves in the accretion disks of cataclysmic variable stars that he discovered from observations done at Fresno State's station at Sierra Remote Observatories. Cataclysmic variables are binary star systems, in which the stars are so close, one star spills gas onto the other star. Because the stars orbit each other, the gas does not fall straight down, but is deflected sideways into a disk. Accretion disks occur all over the Universe, from star formation (which is why the planet in the Solar System are all in one plane, as they orbit the Sun), to galaxies (including the disk structure of our own galaxy, the Milky Way). Cataclysmic variables act as natural laboratories in which astronomers learn accretion disk physics, because a number of physical effects, from nuclear eruptions in novae to thermal instabilities in dwarf novae, occur on human timescales: the wonders of the Universe unfold before our very eyes, and do not take millions of years, as all too many other astrophysical phenomena do.

These include waves in the accretion disks of cataclysmic variables, which vary over 3-4 hours or less, and tell us much about the structure and physics of accretion disks, in ways similar to how seismic waves tell us about what's inside Earth. Jerry discovered waves in the cataclysmic variables LQ Pegasi and HV Andromedae, and did a rigorous search that did not turn up waves in another cataclysmic variable, SW Sextantis. Jerry found both transverse and longitudinal waves in LQ Peg, which are analogous to ocean waves and sound waves, respectively: since both kinds of waves were present, it was possible to solve the long-standing problem of determining the orbital period of LQ Peg. Jerry found only one kind of waves in the accretion disk of HV And, Jerry is now using observations we obtained at Wyoming Infrared Observatory to determine their physical nature. Jerry did not find waves in SW Sextantis, and this negative finding is important, because this star is the prototype of a class of cataclysmic variables, inclusion of which has been suggested (but Jerry has now disproved) to require the presence of waves in the disk.

April 30, 2012



***Plant Science faculty within the Department of Plant Science would like to recognize Nathalia Mourad Moretti.***

My time at Fresno State was remarkable for both my personal and professional life. Before coming to Fresno I was working on corn seed production as a field agronomist for Monsanto in Brazil, my home country. A few months after I started at Monsanto, my boyfriend (now my husband), Marcelo Moretti, was accepted into the Master's Degree program in Plant Science at Fresno State. He encouraged me to also apply for the master's program and I did. But I loved my job and I used to see myself having a career with Monsanto, so quitting was a very hard decision. One day my boss suggested I should start into a master's degree program; he said that it would be important to achieve my career goals. That was just before I was accepted at Fresno State, so I made one of the more important decisions of my life. I quit the job to start my graduate studies and to live closer to my boyfriend and I'm very happy that I made that decision.

During the master's program I advanced my knowledge in Plant Science through the classes, while I gained some research experience. My thesis project, supervised by Dr. Sharon Benes and Dr. Ganesan Srinivasan, tested different nitrogen fertilizer levels and planting densities in sweet corn production. Fresno county is an important producer of sweet corn and both seeds and fertilizer have a large impact on both the yield and cost of producing sweet corn; thus management of those inputs are important determinants for a grower's profit. Results from this project were presented at the CA Plant and Soil Conference – Poster Competitions in 2011 and 2012 and I won first place in the 2010 competition. My research was also presented at the DGS Graduate Research and Creative Activities Symposium on campus in 2011. I also conducted a hybrid trial in which I evaluated the peak time for sugar accumulation in four sweet corn hybrids to determine the best harvest window for each one. A poster of this experiment was presented at the 2010 International meetings of the Agronomy and Soil Science Societies of America (ASA and SSSA) in Long Beach, CA. I was able to attend that meeting thanks to a travel grant from DGS.

During my graduate program, I was also involved in several projects in herbicide resistance and weed control in organic systems with Dr. Anil Shrestha. I presented a poster on pre-plant weed control treatments in organic broccoli at the California Weed Science Society in 2011 and I received first place in the student competition. And a paper on alternative weed management options in an almond orchard was published in a peer-reviewed scientific journal and I am one of the co-authors. My experience at Fresno State created a desire to work in field research and after graduation I would like to work in seed production research and in the near future enter a Ph.D. program in plant breeding. All this was possible because of the financial support of the Harvey-Jordan Graduate Fellowship that paid for most of my academic expenses. I would also like to add that my husband, Marcelo, was always important to this journey, encouraging and supporting me. Last summer we were married, another milestone achieved during my time in Fresno. Marcelo began a Ph.D. program at UC Davis last fall and I hope to soon follow. In the short term, I have applied for research positions in the area of plant breeding and seed improvement.

***Psychology faculty within the Department of Psychology would like to recognize Eduardo Alvarez.***

I am writing to nominate Eduardo Alvarez as an outstanding graduate student. Eduardo is a graduate student in his 3rd year of the master's program in Psychology with an option in Applied Behavior Analysis. Eduardo has done exemplary coursework during his 3 years and has also taken a leadership role as a lead supervisor in the Central California Autism Center, located on campus. Eduardo's innovations with research and development in the autism center have helped the center to develop new programs for children. He has developed data collection systems to analyze outcomes of the treatment protocols used in the autism center, leading us to better applied science with this important work. Eduardo is also a stand out mentor to undergraduate students with whom he trains and works in the center. He has presented research at national conferences several times over the past 2 years, and I expect that his forthcoming thesis is likely to be a publishable manuscript.



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***Rehabilitation Counseling faculty within the Department of Counseling, Special Education, and Rehabilitation would like to recognize Robyne Hamme, Michael Gerald & Joshua Conroe.***

Robyne Hamme - From the moment I met Robyne, she stood out relative to her high level of enthusiasm, intelligence, passion for learning, belief in high-quality service provision to people with disabilities, and collegiality with both her peers and myself. When I think of her, the word intentional comes to mind. Robyne has been very intentional about carving out experiences throughout her academic journey that provides her with the opportunity to develop and refine diverse skill sets. Robyne has expertise in assisting individuals with and without disabilities in enhancing their professional development and successfully securing employment. She also possesses excellent problem solving abilities, great public speaking skills, and grant writing experience. She amazes me by consistently going the extra mile in providing assistance to those she is serving often working extended hours simply because that is what is needed to get the job done. Her mindset of service coupled with humility and dedication is invaluable to those who do not have a support system in place.

Michael Gerald - Michael is a young man who appreciates classes and personal/professional experiences that facilitate growth. He is also the type of individual who engages in critical self-reflection and thinking and incorporates these skills into his academic endeavors. I served on Michael's thesis committee. In this context, I received the opportunity to work with him as he was conducting research on Transgender individuals who are HIV positive. Throughout this process, Michael demonstrated a consistent desire to engage in high-quality research that would benefit a population in which he is passionate about. He has continued to impress me with his dedication to this population via research and practice. Thus, it was not surprising that he was invited to render a presentation at the Florida Association of Enterostomal Therapists last year. Michael is a young scholar and one way he is presently contributing to the rehabilitation counseling profession is through local and national presentations. Michael will be pursuing a doctorate in Rehabilitation Counselor Education at the University of Iowa in the fall. I am extremely honored to have had the opportunity to mentor him.

Joshua Conroe - Joshua Conroe will be completing his master's degree in rehabilitation counseling this semester. He earned a bachelor's degree in Victimology from California State University, Fresno in 2009. Joshua is very passionate about serving underprivileged youth. He has worked for more than five years with various community organizations providing psychoeducational workshops, as well as individual and group counseling to youth who experience difficulty with drugs, gangs, and academics. Joshua is admired by both faculty and his peers. He frequently bridges his work experience with classroom concepts, thereby enriching the teaching and learning environment. Joshua also enjoys working with children and teenagers who are diagnosed with Autism and Asperger's Syndrome. He is experienced in team approaches and partnering with individuals whom he serves as part of his personal philosophy to high-quality service provision.



***School Psychology faculty within the Department of Psychology would like to recognize Diego Lopez.***

Diego Lopez is currently an intern in our School Psychology program and will be graduating in May. He has been an outstanding graduate student throughout his three years in the program. Last year he was selected for our most prestigious school psychology student scholarship, the John Thomas Award because of his ability to connect with people, his curiosity, motivation, and especially his strong work ethic.

He has received excellent evaluations from his field supervisors on practicum and internship. He is an incredibly hard worker, putting in many more hours than required because he wants to learn. He has been placed to work at a variety of school sites, some chosen to enhance his skills in assessment with bilingual students. This year as an intern he worked independently at one elementary school and with administration, implemented the Positive Behavior Support system.

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I chaired Diego's thesis committee. He conducted sophisticated statistical analyses on how well benchmarks in DIBELS across a year predict future STARR test results. He recently defended his thesis; the committee recommends submission for publication.

I have enjoyed additional interactions with him through our local professional organization, CVA-CASP. Last year he served as our Fresno State student liaison and demonstrated impressive responsibility and initiative in recruiting his fellow students to participate and in contributions to the newsletter. This year he has continued to be active on the board as associate newsletter editor.

***Social Work faculty within the Department of Social Work Education would like to recognize Marcelia Black & Abigail Arii.***

Marcelia Black holds a bachelor's degree from and is completing a master's degree in the Department of Social Work Education. During the 2010-2011 academic year, Marcelia served as a Graduate Writing Assistant for the College of Health and Human Services and she was awarded the Division of Graduate Studies Graduate Research Assistant (GRA) grant. Serving as a GRA, Marcelia collaborated with social work faculty on the development of a joint publication. During 2011-12, Marcelia interned at the Social Welfare Evaluation, Research and Training Center and participated in research activities that were used to develop a federal grant focusing on the education and training of clinician/researchers in the field of substance abuse. Marcelia also demonstrated student leadership through her participation in Legislative Lobby Days, sponsored by the National Association of Social Workers. In this capacity, she organized and led two teams assigned to lobby state legislators, including Senate President Pro Tem Darrell Steinberg. Marcelia is currently employed as a Senior Substance Abuse Specialist with Fresno County Department of Behavioral Health Substance Abuse Services. She will continue in this capacity after graduation. Marcelia also plans to pursue a PhD in the future.

Abigail Arii is interning with Clovis Unified School District as she works towards completing her master's degree in social work and the requirements for the Pupil Personnel Services (school social work) credential. She is passionate about social work in the schools and desires to work in this type of setting in the future. She also plans to work towards becoming a licensed social worker (LCSW) in the next few years. She has had the opportunity to get to know and work closely with many students this past semester as the MSW program's Graduate Writing Assistant. According to Abby, "the MSW program has provided me with many life changing experiences that will forever impact the person I am. I thank all of the professors and students who have made my journey so meaningful."

***Spanish faculty within the Department of Spanish would like to recognize Susan Vargas Rizo.***

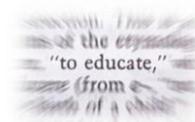


Susana Vargas Rizo earned her Associate in Arts Degree in Liberal Arts from West Hills College in Lemoore. Interested in pursuing her dream of an advanced degree, she transferred to Fresno State to first complete her BA in Spanish. During her post-baccalaureate education at Fresno State, she has earned a perfect 4.0 GPA. Currently, Vargas Rizo is working on her culminating experience for her MA in Spanish. She is working on a remarkable and original thesis entitled "La desestabilización de las estructuras del poder en las novelas de María de Zayas". Drawing on an array of primary and secondary sources, and referring to the ideas of Derrida, Spivak and contemporary feminist theories, Vargas Rizo explores the ways María de Zayas y Sotomayor—one of the most prominent writers of the Spanish Golden Age—subverts and destabilizes the rigid patriarchal structure prevailing in the 17<sup>th</sup> century to, thereby, give voice to women or female desire. Through empowered female characters, that challenge and combat elements of patriarchal confinement, and through representation of violence in *Novelas amorosas y ejemplares* and *Desengaños amorosos*, she discusses Zayas's resistance and subversion to patriarchal power structure. Optimistic about herself and the

invaluable guidance of her thesis director Dr. Ted Bergman, she hopes to accomplish her thesis successfully. In a not-so-distant future, Vargas Rizo plans to pursue a doctorate and become a professor.

***Special Education faculty within the Department of Counseling, Special Education, and Rehabilitation would like to recognize Loretta French.***

Ms. French has earned all of her degrees and credentials from Fresno State; BA in Liberal Studies (2003) and her Masters of Arts in Special Education (2012). Loretta currently teaches as a Resource Specialist at the elementary level in Clovis Unified. During her post-baccalaureate education, both credential and graduate courses, she has earned a perfect 4.0 GPA. Her thesis is original research entitled "Response to Intervention RTI: Examining an RTI program and its effect on Oral Reading Fluency with students who have Specific Learning Disabilities". Her mixed methods study explored the key components of RTI while investigating through a single subject design if a difference exists in reading achievement for students receiving RTI interventions. Five common themes were shared which added to the research base of the relatively new philosophy of intervention (RTI). Loretta is an exemplary professional and an ideal model of the collaborative nature of the work in the field of special education.



***Teaching faculty within the Department of Curriculum and Instruction would like to recognize Laurie Jones.***

I nominate Ms. Laurie Jones as the Master of Arts in Teaching "Standout Graduate Student" for Cohort 6, 2010-11. Laurie advanced the scholarship of equity-oriented teaching and learning primarily through her action research project, "Constructing a Socially Just Classroom Community: Organizational Strategies to Build Student Teacher Relationships and Create a Democratic Learning Environment," as well as her action research mini-study, "A Day in the Life of a Central Valley Teen: An Exercise in Multicultural, Social Justice Pedagogy." Ms. Jones's project was an exemplary exploration of classroom community approaches consistent with democratic learning classrooms. Laurie's mini-study documented project based teaching as a vehicle for "meaningful" test preparation for California's language arts standards test. In short, both were outstanding examples of social justice teaching intended to help students discover power in their lives inside and outside school.

***Viticulture and Enology faculty within the Department of Viticulture and Enology would like to recognize Joseph G. Geller.***

Joseph G. Geller joined the Department of Viticulture and Enology in June 2010. Previously, he was trained as a biomedical engineer at the University of South Carolina but his passion for wine grapes landed him in Fresno. For his Master's thesis Joseph conducted a field production trial on Mechanical Canopy and Crop Load Management of Pinot Gris. Pinot gris is a difficult grape to grow mostly associated with cooler climates like northern Italy. Joseph found the interactions of what makes this grape grow at an economically sustainable level with physiological balance parameters in tact. He was active in the Viticulture Club serving as their secretary, then the outreach chair organizing many educational events for his fellow students. Joseph was immediately placed with Treasury Wine Estates (a multinational wine estate) due to the experience and knowledge he gained at the Department of Viticulture and Enology and will be working mainly on the Central Coast of California.

