UW 3MT

3 MINUTE THESIS

VIRTUAL EDITION

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COMPETING FINALIST BIOS

Jocelyn Powelson
Master's in Public Health

PRESENTATION TITLE >

"Identifying Barriers and Solutions to Improve Complete Immunization for Children Under the Age of 2 in Rural Mozambique"

Jocelyn is an MPH student studying Global Health. During her work abroad and her studies at UW, she has focused on maternal and child health and is passionate about researching and developing programs to improve equitable access to maternal and child health services. For her thesis, Jocelyn worked with Seattle-based NGO, VillageReach, on a qualitative study in rural Mozambique. They aimed to identify determinants of dropout from the under-2 routine immunization schedule and understand why some caregivers begin their children's vaccination process but do not complete it. The research team used a community-based, participatory approach and interactive data collection methods to facilitate community-member engagement throughout the study. The findings are feeding into a Human Centered Design workshop in which caregivers and health workers who participated in the study are working together to identify solutions that will facilitate caregivers to complete the immunization process for their children. In the project's next phase, the team aims to implement those solutions and examine their impact on vaccination completion. Jocelyn's ultimate goal is to develop a package of solutions that can be adapted to different contexts around the world and enable more caregivers to complete their children's immunizations, protecting them from vaccine-preventable diseases.

Monica Cortés Viharo
Ph.D., School of Drama

PRESENTATION TITLE >

"The Utopian Power of Community-Based Performance"

COLLABORATOR >

Elizabeth Gregory Home

Monica Cortés Viharo is a doctoral candidate in the UW School of Drama and has earned a Certificate in Public Scholarship from the UW Simpson Center for the Humanities. Her research focuses on community-based performance, or collaboratively creating theater with, about, and for community members by using their words and lived experiences, a method also known as documentary theater. She is interested in the political and education coalitions established through these endeavors, and how they are used as a form of Latina feminist art and activism. Her work has been published in scholarly journals including *Theatre Topics*, *The New England Theatre Journal*, the *Journal of Dramatic Theory and Criticism*. Monica is also an actor (SAG/AFTRA), a company member of eSe Teatro (a Seattle-based Latina theater company), a public speaking consultant, and the performance coach for TEDxYouth@Seattle. As a member of the Humanities Washington Speakers Bureau, she delivers workshops on communication and performance to audiences throughout the state (now via Zoom). She has taught drama, public speaking, and ethnic studies at UW, the University of Puget Sound, Cascadia College and in Fall 2021 will teach at the School of the Art Institute of Chicago. To learn more, visit Monica's website, mcvphd.com.

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Beth Halsne

Ph.D. in Rehabilitation Science and Master's in Mechanical Engineering

PRESENTATION TITLE >

"Test-Drive: Using a Robotic Prosthetic Foot to Put Patients In the Driver's Seat For Healthcare Decision-Making"

Beth Halsne is a Certified Prosthetist-Orthotist and a concurrent graduate student in Rehabilitation Science and Mechanical Engineering. Her dissertation research improves how people living with leg amputations can be involved in decisions about their prosthetic leg. Beth's research used a robotic prosthetic leg to create a "test-drive" strategy for prosthetic feet, allowing people with amputations to quickly test-drive simulated versions of different types of feet for themselves, instead of having to rely on clinicians to choose a foot for them. Her research uses both quantitative and qualitative methods to amplify the voice of amputees in healthcare decision-making. Through her innovative use of robotics, Beth is combating inequities in the way that people with disabilities can participate in decisions related to their health, making them an equal partner in the process. She is dedicated to improving the lives of people living with physical disabilities, empowering them through technology to participate fully in the activities that are meaningful to their lives.

Harini Ram Prasad

Master's in Data Science

PRESENTATION TITLE >

"Removing Bias in ML with Explainable Boosting Machines"

CAPSTONE TEAMMATES >

Javier Salido & Florencia Marcaccio

Harini is a recent graduate from the UW's MS in Data Science program. Her Capstone team (Harini Ram Prasad, Florencia Marcaccio, Javier Salido) worked on research to use interpretable machine learning models (EBMs) to detect and remove inherent biases in data and ML approaches. Often, data biases or incorrect data reporting can cause ML models to make unfair assessments in high stakes situations. Some such scenarios include assessment of criminal recidivation risk, health risk, and loan valuation. In such cases wherein highly important decisions are dependent on AI, it becomes increasingly essential that the algorithms used do not unintentionally discriminate against certain populations based on sensitive factors that are potential sources of bias: race, disability status to name a few. Harini's team uses EBMs to explore the effectiveness of several methods to remove bias in ML and highlights two noteworthy methods to do so.

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COMPETING FINALIST BIOS

Maggie Yuse
Master's of Public Administration

PRESENTATION TITLE >
"Government and Business Strategies for an Equitable & Effective COVID-19 Vaccine Campaign in Washington State"

CAPSTONE TEAMMATES >
Abigail Minor, Caitlin Bishop & Hanna Peterson

After graduating from UW with a degree in Sociology in 2015, Maggie served as a Session Aide and Legislative Assistant for a Washington State Senator. She also managed a State House campaign before returning to the UW to complete a Master's of Public Administration. While pursuing her MPA, Maggie has worked in the UW's Office of State Relations assisting relations between the university and the legislature. She is representing her teammates, Abby Minor, Caitlin Bishop, and Hanna Peterson, in the 3MT Competition. Their project aids a local nonprofit, Restart Partners, in assisting Washington State government agencies, businesses, and public health officials in implementing an equitable and successful COVID-19 vaccine campaign. Restart was formed in response to the COVID-19 pandemic to support state and local efforts to slow the spread of the coronavirus through strategic public policy recommendations. Abby, Maggie, Hanna and Caitlin contribute evidence based policy recommendations to encourage vaccine trust and uptake. Recognizing that racial minority populations have the highest risk of contracting and dying from COVID-19, their recommendations center on improving vaccine accessibility and conducting intentional outreach, engagement, and prioritization among these populations.

Jackie Otting
Master's of Learning Sciences & Human Development

PRESENTATION TITLE >
"How Prepared do Educators Feel to Meet the Needs of Multilingual Learners with Disabilities?"

Jackie Otting is pursuing her Masters of Education from the UW College of Education in Learning Sciences and Human Development. She taught K-6 English learners in Iowa and high school Mandarin Chinese online. Currently, she is a curriculum consultant for an EdTech company working to create an English learning program for elementary multilingual learners. Jackie will return to her position as a K-6 teacher of multilingual English learners in Iowa City, Iowa this fall. Jackie's research examines educators' feelings of preparedness and efficacy towards the education of multilingual learners (MLs) with disabilities. The data indicates that educators who have had prior coursework or professional development on the education of MLs with disabilities feel more prepared to teach these exceptional learners. This finding calls for more professional development and coursework opportunities for educators in specific instructional strategies for MLs with disabilities. The study also found that educators who had prior experience working with MLs with disabilities felt more prepared to work with these students. This calls for more inclusive education models for MLs with disabilities in English and World Language classrooms. This research focuses on equitable education and academic success for MLs with disabilities through improved teacher preparation.

UW 3MT

3 MINUTE THESIS

VIRTUAL EDITION

COMPETING FINALIST BIOS

Selorm Tamakloe

Master's of Science in Applied Chemistry & Technology

PRESENTATION TITLE >

"The effects of CD101 variants on Erythrocyte Sedimentation Rate (ESR) and Blood Glucose"

Selorm Tamakloe is a graduate student pursuing an Applied Chemistry and Technology Master's degree here at the UW with the aspiration of becoming a pediatrician. Born and raised in Ghana, Selorm has always been curious about the way the world works and how seemingly different entities interact and affect each other. Her curiosity led her to pursue her current path and to acquire a bachelor's degree in dance and biochemistry. One of Selorm's biggest goals is to open her own hospitals across all sub-Saharan Africa to improve the African health care system. Her current research of CD101 gene variants and their effects on erythrocyte sedimentation rate and diabetes in the Kenyan population will provide information about CD101's role in regulating inflammation. HIV acquisition and inflammatory-related disorders such as diabetes are strongly influenced by socioeconomic factors and African Americans have greater risks of HIV acquisition and diabetes than non-Hispanic non-African Americans. The results from her thesis will provide information towards understanding the connections between CD101 variants and the social and exposure factors that amplify the risk of HIV and diabetes acquisition. Especially in this high-risk population. In her spare time, Selorm enjoys dancing, singing, napping, cooking, and learning new languages.

Katharine Madoka Ishida

Master's, MEDEX Northwest Physician Assistant Program

PRESENTATION TITLE >

"Underrepresentation of Skin of Color in Dermatology and its Effect on Diagnosis and Treatment of Atopic Dermatitis"

Katharine Ishida is a second year physician assistant student originally from Los Angeles, CA. As a first generation Japanese American growing up in an immigrant household, she has learned to value diversity and to appreciate cultural differences. Her Master's Capstone Research Project brings awareness of the implicit bias in medical education, specifically in the field of dermatology. Her research focuses on a common dermatological disease called atopic dermatitis, and highlights the evidence of the healthcare gap seen in black and POC communities. The lack of diversity and inclusion of the black and people of color (POC) communities in medical education and resources marginalize racial minorities. She hopes that her research will raise awareness of this inequity in dermatology, and focuses on avenues for change to recondition how to provide better quality care to people of all skin color.

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Miebeth Bustillo–Booth

Doctor of Education in Educational Leadership, School of Education

PRESENTATION TITLE >

"Equity by Design and Delivery Model: Eliminating Opportunity Gaps in Online Learning"

Miebeth Bustillo-Booth is a first-generation college student with a proud immigrant background. Her family fled the dictatorship of Philippine President Marcos and sought a better life in the U.S. This experience heightened Miebeth's sensitivities to the liberating power of education and the dignity of meaningful work. It led her to seek equitable solutions in workforce education pathways. For example, she developed the Equity by Design and Delivery (EDD) model to eliminate opportunity gaps and increase completion rates across student groups in online learning. The EDD model was piloted in a community college baccalaureate program she created for non-traditional students who did not have access to bachelor's degrees and were shut out of middle-income jobs. Preliminary results of an EDD model course showed significant reductions not only in outcome gaps (e.g., grades, course completion rates), but also increases in average grades and completion rates across student groups. The program has now adopted more EDD model courses. Today, Miebeth is the Director of Professional Education at Bellevue College where she helps professionals bridge skills gaps to remain competitive in our digital revolution. This June, she earns a Doctor of Education in Educational Leadership from the School of Education, UW Tacoma.

Arianne Caudal

Ph.D. in Biochemistry

PRESENTATION TITLE >

"A Map of the Failing Heart"

The heart needs incredible amounts of energy in order to pump blood throughout the body. The heart can generate the most energy if it uses fat for fuel. During the progression of heart failure, the heart makes an unfavorable decision to use sugar instead of fat, and is therefore described as being "an engine out of fuel". Despite being a leading cause of death world-wide, development of new therapies have been stagnant for nearly three decades. New and innovative strategies are urgently needed. The Tian Laboratory at UW is focused on targeting metabolism in order to fix the failing heart. Arianne Caudal's thesis is focused on defining the protein landscape of the failing heart — including what proteins are present, their shape, abundance, and how they interact with one another in their native environment. This system-wide view will help our understanding of heart disease and uncover new druggable targets.

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Caitlin Reed

Master's of Library and Information Science

PRESENTATION TITLE >
"Green Hill School Library Collection Development"

CAPSTONE TEAMMATES >
Ginny Trufan & Todd Isaacson

Caitlin Reed is graduating this June with a Master of Library and Information Science degree. She is drawn to academic librarianship, as well as the intersection of libraries and social justice. She was awarded the Carol Danz Endowed Scholarship for her hard work and dedication as a student employee with UW Libraries. Together with Ginny Trufan and Todd Isaacson, Caitlin has been working with the Green Hill School Librarian to develop a capstone project. Green Hill is a facility in Chehalis, WA for Juvenile Rehabilitation treatment of males aged 17-25. Their team is raising funds to be used toward collection development for the library. Relying primarily on donated items, Green Hill library's current collection does not reflect its population, so her team aims to diversify and broaden its content.

Chris Schad

Master's of Social Work

PRESENTATION TITLE >
"Advocating for the VA to Cover Gender-Affirming, Medically Necessary Top Surgery for Transgender and Gender Diverse Veterans"

Chris Schad is a queer, cisgender woman completing her Advanced Practicum at the Seattle Veterans Administration (VA) and she is a passionate advocate for social justice, particularly in support of LGBTQ+ issues. Chris formed an interdisciplinary team to promote the expansion of access to care for gender-affirming, medically necessary top surgery to reduce suicide risk for Veterans who experience gender dysphoria. During her literature review, Chris learned that the VA is likely the largest provider of healthcare to Transgender and Gender Diverse (TGD) people in the world, and as such she believes the VA has an opportunity to also be the best healthcare provider for TGD Veterans. Research has found that Transgender Veterans engage in suicidal behaviors at a rate 20 times higher than the overall VA population, and that suicidality among TGD people is highest when gender-affirming surgery has been denied. Currently, gender-affirming surgery is not covered by the VA. Chris is advocating for the VA to be a leader in the provision of healthcare to TGD Veterans and cover medically necessary top surgery in alignment with standards of care outlined by the World Professional Association for Transgender Health (WPATH), in order to reduce suicide risk among TGD Veterans.