

Ulises Trujillo Garcia

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EDUCATION

Doctor of Philosophy, Engineering Education Systems and Design Expected: May 2026
Arizona State University, Mesa AZ

Master of Science, Engineering Education Systems and Design Summer 2024
Emphasis: Higher and Postsecondary Education
Arizona State University, Mesa AZ

Bachelor of Science, Civil Engineering May 2022
Honors: *magna cum laude*
Boise State University, Boise ID

SKILLS

- R, SPSS, AutoCAD, Matlab, Python, SkyCiv & Stella
- Spanish native speaker and writer
- Experience writing research papers, technical reports, funding proposals and analysis

CONFERENCE PROCEEDINGS

1. **Trujillo, U.**, (2024) Exploring Funds of Knowledge and Social Capital of Migratory Students in STEM: Revised Instrument. *American Society for Engineering Education*

2. **Trujillo, U.**, & Verdín, D., (2024) Examining Engineering Migratory Students' Funds of Knowledge: Uncovering Interpersonal Skills Needed in Engineering. *American Educational Research Association*

3. **Trujillo, U.**, Pakala, K., Schauer, S., Bairaktarova, & D., Chittoori, B., (2021) Evaluating STEM Course Re-Design Strategies in Light of COVID-19. *American Society for Engineering Education*

JOURNALS & BOOK CHAPTERS

1. Garza, D., Facundo, A., **Trujillo, U.**, & Enright E. A., (2024) *Empoderamiento a través del testimonio: Learning about a college of engineering's mission to become a Hispanic serving college in a predominantly white institution*. In L.C. Perez-Felkner, S. Rodriguez, C. Fluker. (Ed.) *Latinx Students in Engineering* (In Press)

2. Hagenah, S., **Trujillo, U.**, Pakala, K., Schauer, S., Neeley, L., & Jankowski, E., (2023) Connecting Engineering with Undergraduate Engineering Students' Life Stories Through Narrative Communication. *Journal of Engineering Education* (Submitted)

IN PREPARATION

1. Verdín, D., & **Trujillo, U.**, (2024) Infusing Gamification with Culturally Responsive Instruction: A Study of Migratory High School Students' Development of Critical Engineering Agency. *International Journal of STEM Education*

2. **Trujillo, U.**, & Verdín, D. (2024) Cultivating Engineering Skills: Uncovering the Funds of Knowledge Among Engineering Students and Professionals with Migratory Backgrounds. *Journal of Latinos and Education*

RESEARCH EXPERIENCE

Research Assistant, *Engineering Education*

August 2022 – Present

Arizona State University

- *NSF project BCSEER: Empowering Children of Migratory/Seasonal Farmworkers with Gamification and Culturally Responsive Engineering Design Instruction*
- Mentor: Dr. Dina Verdin
- Redesigned pilot activity infusing gamification and culturally responsive pedagogy to support migratory students' exposure to engineering
- Developed a hands-on activity using Arduinos to enhance migratory students' understanding of the engineering design process
- Conducted interviews to understand how migratory students' lived experiences and family funds of knowledge have shaped their decision to pursue engineering

Independent Researcher, *College of Education*

November 2021 – May 2022

Boise State University, Boise ID

- *Empoderamiento a través del testimonio: Learning about a college of engineering's mission to become a Hispanic serving college in a predominantly white institution*
- Mentor: Dr. Esther Enright
- Conducted literature review and semi-structured interviews
- Analyzed and decoded qualitative data from semi-structured interviews to translate into findings

Independent Researcher, *College of Engineering*

January 2022 – May 2022

Boise State University, Boise ID

- *Connecting Engineering with Undergraduate Engineering Students' Life Stories Through Narrative Communication*
- Mentor: Dr. Krishna Pakala & Dr. Eric Jankowski
- Composed introduction, literature review, intellectual merit & methodology on the research project

Research Fellow, *Station1 Frontiers Fellowship*

June 2021 – August 2021

Lawrence, Massachusetts

- *Mixed Method Approach to Advance Equity and Social Justice in Infrastructure*
- Mentors: Dr. Christine Ortiz, Dr. Ellan Spero, Dr. Jingjie Yeo & Dr. Francisco Martin-Martinez
- Awarded competitive fellowship valued at \$13,500 to participate in accelerated research program
- Engaged in 100 hours of interdisciplinary curriculum on socially directed science and technology research and professional development completing over 30 assignments and 270 hours of research internship concurrently
- Conducted a literature review & created a poster on the technical and social aspects of the internship project with the Institute for Sustainable Infrastructure
- Participated in Leadershape, an intensive 4-day leadership curriculum focusing on inclusive leadership

Sustainable Infrastructure Researcher, *Institute for Sustainable Infrastructure*

June 2021 – August 2021

Washington DC, Washington DC

- *Conducting a Comparative Analysis of Envision Projects related to Sustainability and Resilience*
- Mentors: Kristi Wamstad and Melissa Peneycad
- Completed the Envision Sustainability Professional (ENV SP) training and passed the exam required to earn the ENV SP credential
- Developed a method to analyze scoring across all Envision-verified projects to map frequent achievements, missed opportunities, and identify the strategies used to achieve high performance within the Envision categories, subcategories, and criteria
- Extracted key findings from projects to highlight best practices that can be shared with the industry

Undergraduate Researcher, *Louis Stokes Alliances for Minority Participation*

May 2020 – July 2020

Boise State University, Boise ID

- *Evaluating STEM Course Re-Design Strategies in Light of COVID-19*
- Mentor: Dr. Krishna Pakala
- Conducted Literature Review
- Designed and deployed a survey to capture the experiences and perceptions from STEM faculty about the rapid transition to online learning in times of disruption
- Analyzed qualitative and quantitative data to provide the best methods to teach online STEM courses

RELEVANT EXPERIENCE

Founder, *OMLI Scholarship Fund*

September 2021 – Present

Treasure Valley Community College, Ontario OR

- Created and managed a scholarship for graduating high school seniors with migrant farm working backgrounds in Eastern Oregon (~\$30,000)
- Vision: Empowering migrant youth into the next generation of leaders through educational access and opportunity

Crew Leader, *Micron STEM Outreach-Chip Camp*

June 2022

Micron, Boise ID

- Served as a role model for students entering 8th and 9th grade to provide an inside hands-on experience on how memory chips are made while inspiring them to learn about the different engineering disciplines
- Coordinated and facilitate recreational and educational activities for middle school students while assisted by Micron professionals

Peer Mentor, *College Assistance Migrant Program*

August 2019 – May 2022

Boise State University, Boise ID

- Provided individual support to students in overcoming personal and academic obstacles during their first year in college
- Served as a positive social and academic role model by supporting mentees with their campus involvement
- Informed students about resources available on campus and career opportunities

Mentor, *Oregon Migrant Leadership Institute*

Summer 2018, 2019, 2020

Treasure Valley Community College, Ontario OR

- Educated more than 150 migrant students through engaging workshops and activities to become leaders
- Directed leadership curriculum, icebreakers, team challenges, financial aid/scholarships workshops, volunteer service, and recreation activities for one of the four teams
- Served as a source of support both during and after the Institute to further students' growth

Physics & Math Tutor, *College Assistance Migrant Program*

Fall 2018 – Spring 2020

Boise State University, Boise ID

- Worked with underrepresented students one-on-one to form good study habits
- Improved confidence in students' ability to solve problems in Physics, Pre-Calculus and Calculus I
- Explained properly the denotation and processes to solve equations

Community Organizer, *Euvalcree*

January 2017 – May 2017

Ontario, OR

- Identified individuals without medical insurance for the "I'm Healthy" program
- Promoted bilingual (English and Spanish) education, immigration and healthcare information to community members
- Organized/coordinated the "Children's Day/Día del Niño" event where more than 3,000 people attended

LEADERSHIP

- Director, *Project: Dream for Tomorrow*** Fall 2019
Boise State University, Boise ID
- Planned, budgeted, and documented a two-day event for Latinx students in the Magic and Treasure Valley, Idaho to learn about campus life, admissions, financial aid, housing, and other campus resources to encourage and inspire them to pursue a higher education
- Participant, *HACU National Conference – ¡Adelante! Leadership Institute*** October 2019
Chicago, IL
- Received three days of intensive leadership and professional development
- Advocate, *HACU Capitol Forum*** April 2019
Washington D.C.
- Advocated for the Higher Education Act to provide funding to Hispanic Serving Institutions and STEM & Articulation Programs
- Elected Advocate, *HEP/CAMP Annual Directors' Meeting*** July 2018
Washington D.C.
- Selected as the student speaker from all the CAMP programs in the nation
 - Advocate for the College Assistance Migrant Program

PROFESSIONAL DEVELOPMENT & PRESENTATIONS

- Poster Presenter, *Frontiers in Education Conference*** October 2023
College Station, TX
- Infusing Culturally Responsive Instruction with Gamification: Findings from an Engineering Design Activity for High School Migratory Youth
- Participant, *Society of Hispanic Professional Engineers National Convention*** October 2020
- Poster Presenter, *Idaho Conference on Undergraduate Research*** July 2020
Boise State University
- Evaluating STEM Course Re-Design Strategies in Light of COVID-19*
- Participant, *American Society for Engineering Education 2020 Annual Conference*** June 2020
University of Maryland
- Participant, *Pacific Northwest LSAMP Conference*** February 2019
University of Washington

PROFESSIONAL SOCIETIES & VOLUNTEER SERVICE

- Member, *Tau Beta Pi (Engineering Honor Society)*** December 2021
- Member, *Order of the Engineer*** November 2021
- Vice President, *Society of Hispanic Professional Engineers*** April 2021 – May 2022
- Assisted and advised the president
 - Created and facilitated workshops to develop the skills of SHPE members
- Treasurer, *Chi Epsilon (Civil Engineering Honor Society)*** February 2020 – May 2022
- Managed the finances for the organization
- Fundraising Officer, *Organizacion de Estudiantes Latino-Americanos*** January 2020 – May 2022
- Prepared funding proposal that secured **\$30,000** in funds to be use the next three years to host Project: Dream for Tomorrow
- President, *Organizacion de Estudiantes Latino-Americanos*** January 2019 – 2020

- Managed meetings, and assisted the advisor, vice president and treasurer regarding organizational matters
- Created and facilitated a variety of professional development and technical workshops such as stress relievers, career fair preparation, LinkedIn, and resume workshops

Co-Chaired, *Cesar Chavez Blood Drive*

2018 & 2020

- Planning, recruitment, and implementation of blood drive

HONORS & AWARDS

National Science Foundation (NSF) Graduate Research Fellowship	2022 – 2025
Graduating Student Leader Designation	May 2022
Undergraduate Research Scholar Designation	May 2022
Keynote Speaker, Latinx Student Recognition	May 2022
Featured, U.S. Department of Education Homeroom Blog	January 2022
Fellow, Micron Academy for Inclusive Leadership	2021 – 2022