Jialing Wu

Columbus, OH 43201

(615) 397-4328 | wu.6489@buckeyemail.osu.edu | jialingwu.netlify.app/

Education

The Ohio State University, College of Engineering, *Columbus, OH, U.S.A.* Expected May 2028
Ph.D. in Engineering Education
Minor in Computer Sciences and Engineering - AI Track (ongoing)

Vanderbilt University, Peabody College, *Nashville, TN, U.S.A.* May 2024
Master of Education, International Education Policy and Management

Shanghai University, School of Mechanical Engineering and Automation, *Shanghai, China* July 2017
Bachelor of Engineering, Mechanical Engineering

Publications

- **Wu, J.**, Dalal, M., & Carberry, A. (2025). Advancing equity: Exploring the experiences of transgender and gender non-conforming students in a pre-college engineering course (work in progress). *2025 ASEE Annual Conference Exposition Proceedings.* https://doi.org/10.18260/1-2--57577
- Wei, X., **Wu, J.**, & Klein-Gardner, S. (2025). Board # 211: Parents' knowledge, attitude and behavior on pre-college engineering education course (work in progress). *2025 ASEE Annual Conference Exposition Proceedings.* https://doi.org/10.18260/1-2--55568
- Lachapelle, C., Dalal, M., McKeown, K., & **Wu, J.** (2025). Curriculum design for all learners. *2025 ASEE Annual Conference Exposition Proceedings*. https://doi.org/10.18260/1-2--56190
- Darling-Aduana, J. S., Heinrich, C., Noonan, **J., Wu**, J., & Enriquez, K. (2025). Failing to learn from failure: The facade of online credit recovery assessments. *AERA 2025*. https://doi.org/10.3102/ip.25.2182630
- **Wu, J.**, & Dalal, M. (2024). High school students' perspectives on pre-college Engineering Education Courses (fundamental). *2024 ASEE Annual Conference Exposition Proceedings.* https://doi.org/10.18260/1-2--47527
- **Wu, J.**, Leger, N., & Klein-Gardner, S. (2024). High school students' perspectives on mathematical modeling in the Engineering Design Process (RTP). *2024 ASEE Annual Conference Exposition Proceedings.* https://doi.org/10.18260/1-2--47528

Accepted

- Dalal, M., **Wu, J**., & Iqbal, A. (2025 September). Overcoming challenges in robotics education: Examining teacher facilitators and barriers. *Research in Engineering Education Symposium (REES)*
- Lyra, M. M. de, **Wu, J.**, & Carberry, A. (2025 November). Exploring early-career engineering faculty experiences teaching using social cognitive theory. *2025 IEEE Frontiers in Education Conference (FIE)*
- Wei, X., **Wu, J.**, Klein-Gardner, S., & Dalal, M. (2025 November). Evaluating fidelity of teaching in pre-college engineering: A case study of curriculum implementation. *American Evaluation Association (AEA)*

Research Experience

The Ohio State University, College of Engineering, *Columbus, OH, U.S.A.* Aug. 2025 - Present
Graduate Research Assistant
(Supervisor: Dr. Adam Carberry)

The e4usa+FIRST program combines the *Engineering for US All (e4usa)* curriculum with *FIRST Robotics*, offering hands-on engineering for college and high school students.

- Lead the development of research instruments, including surveys grounded in Social Cognitive Career Theory (SCCT) and computational thinking frameworks, to assess student self-efficacy, identity, and skill development.
- Prepare and submit IRB applications, ensuring research protocols meet ethical standards and compliance requirements across multiple high school sites.
- Conducted qualitative analysis of teachers' interviews on robotics curriculum implementation, identifying facilitators and challenges to inform curriculum revisions and wrote the methods and results sections of research papers.

Vanderbilt University, School of Engineering, *Nashville, TN, U.S.A.* June 2023-July 2024
Graduate Research Assistant
(Supervisors: Dr. Stacy Klein-Gardner, Dr. Medha Dalal)
Engineering for Us All (e4usa) is a first-of-its-kind, national initiative designed to introduce engineering design principles to a new generation of students.

- Investigated high school students' perspectives on engineering education courses; analyzed the relationship between students' backgrounds and career choices; conducted qualitative analysis on open-ended responses, developed codebooks, and performed statistical tests to compare pre- and post-test data.
- Explored students' opinions on using mathematical modeling tools in engineering design; analyzed focus group data and compared thematic findings with cognitive load theory to identify potential improvements in instructional design.
- Revised Unit 2 curriculum, changing the topic from water filters to wind turbines; revamped 5 lessons and 9 activities, adapted 8 lessons and 7 activities, and overhauled teaching slides and assignments. Redesigned MATLAB code and associated activities; collected teacher feedback during curriculum pilots and the new semester.

Work Experience

Howard Hughes Medical Institute (HHMI), *Maryland, U.S.A.* May. 2024-Aug. 2024
Assessment Intern, Science Education
The BioInteractive team at HHMI creates engaging, science-based educational resources that empower educators to teach complex biological concepts through real-world examples and interactive media.

- Developed a comprehensive HTML codebook with 9 chapters and 25 sections to guide the content team in designing Canvas course pages. The codebook covers HTML coding for text formatting, hyperlinks, multimedia, call-out boxes, interactive games, and other page elements.
- Monitored teacher enrollment data for an inclusive teaching course, recording key information such as teacher backgrounds, course enrollment dates, and participation duration.
- Utilized UDOIT to perform accessibility audits on course content and developed an issue handbook to provide content editors with actionable guidelines for improving accessibility.

Shanton Way Executive Search Co., Ltd., *Shanghai, China* July 2017-July 2022
Consultant
An Asia-based headhunting firm with offices in Hong Kong, Singapore, and Shanghai (headquartered).

- Partnered with clients across education, consulting, finance, technology, and pharmaceutical industries to identify hiring needs for academic, administrative, and senior management roles.
- Recruited and managed a talent pool of 1,500+ candidates for international and bilingual schools, leveraging LinkedIn, recruiting platforms, and direct outreach.
- Interviewed and assessed candidates' qualifications and cross-cultural competencies, recommending suitable matches based on client requirements.

Scholarships and Awards

- Frédéric Bastiat Fellowship, Mercatus Center at George Mason University (2025)
- Second Place Best Division Paper, ASEE Pre-College Engineering Education Division (2025)
- Scholastic Achievement Scholarship, Vanderbilt University, Peabody College (2022)
- University Scholarship for Academic Excellence, Shanghai University (2014, 2015)

Training and Certificate

- Summer Institute in Computational Social Science, University of Rochester (2025) - *LLM, Network Analysis*
- ICPSR Summer Program, University of Michigan (2024) - *Python, R, Text Analysis*

Leadership and Service

- Graduate Ambassador; Department of Engineering Education, The Ohio State University (2024-2025)
- Founding Member and Treasurer; International Mentorship at Peabody (iMAP), Vanderbilt University (2023-2024)
- Mentor; Peabody Peer Career Mentor Program, Vanderbilt University (2023-2024)
- Mentor; Peabody International Students and Affairs, Vanderbilt University (2023-2024)
- e4usa Program Coordinator; Wind Turbine Competition at IEEE-ECCE conference for high school students (2023)
- Migrant Children Program Coordinator and Teacher; AIQUZHI Volunteer Group (2017-2022)