

Mae Zeng Martel

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EDUCATION

Washington University in St. Louis Master of Science in Engineering Management (MSEM)	May 2024
Washington University in St. Louis B.S. Computer Engineering	May 2024
Colgate University B.A. Physics, Minor in Computer Science	May 2021
<ul style="list-style-type: none">- Dean's Award with Distinction for Academic Excellence (2018, 2020, 2021)- Class of 1951 Memorial Endowed Scholarship (2021)- Colgate Benton Scholar Award (2018)	

WORK EXPERIENCE

Northrop Grumman <i>Computer Engineer</i>	Summer 2024 – Present
<ul style="list-style-type: none">- Design and integrate advanced electrical systems for defense and aerospace applications.	
USAR <i>O-1 Military Police Officer (31A)</i>	Summer 2024 – Present
<ul style="list-style-type: none">- 313th HHD TC MCB, Baltimore, MD	
McKelvey Education <i>Assistant Instructor</i>	Fall 2022 - Spring 2024
<ul style="list-style-type: none">- Held recitations, tutored, and assisted with grading for ESE 415: Optimization and ESE 326: Probability and Statistics for Engineers at WashU.	
Crow Observatory <i>Observatory Staff</i>	Fall 2021 - Spring 2024
<ul style="list-style-type: none">- Managed the WashU Crow Observatory and an 1863 Yeatman Refractor Telescope, located and presented astronomical objects to guests, troubleshooted observatory issues, and assisted with observatory logistics.	
ACE Advanced Cyber Education Internships <i>Cyber Intern</i>	Summer 2023
<ul style="list-style-type: none">- Intensively studied Information Operations, Cyber Attack, Cyber Defense, Digital Forensics, Reverse Software Engineering, and Cryptography at WPAFB.	
Colgate Information Security <i>Cybersecurity Software Engineer Intern</i>	Summer 2021
<ul style="list-style-type: none">- Contributed to Information Security Office cybersecurity meetings twice per week, working with engineers to discuss and implement updates to the university cybersecurity system, and conduct individual cybersecurity research.	
Syracuse Biomaterials Institute Interactive Biomaterials REU <i>Research Assistant</i>	Summer 2021
<ul style="list-style-type: none">- Conducted Molecular Dynamics (MD) simulation research with the Nangia and Moz Labs.- Publication: "Lipidation Alters the Structure and Hydration of Myristoylated Intrinsically Disordered Proteins." <i>Biomacromolecules</i>. Accepted 26, Jan. 2023.	
Colgate Ho Tung VisLab <i>Planetarium Staff</i>	Spring 2019 - Spring 2021
<ul style="list-style-type: none">- Explained celestial objects within the current sky to guests, focusing on astronomical concepts, constellations, and planets using Digistar 7 planetarium dome programming and Autodesk Maya 3D Modeling software.- Managed dome projectors, lighting, sound, and safety instructions for guests, and troubleshooted hardware issues.	

SKILLS

Software: C/C++, Java, Python, Matlab, Linux, Unix, Digistar 7, Excel, PSPICE, Qiskit, VS Code, Eclipse, Procreate
Languages: U.S. State Department Certified Intermediate-Novice (NSLI-Y China): Chinese; Intermediate: Japanese, Latin

LEADERSHIP & EXTRACURRICULARS

Graduate Student Affairs Advisory Board (GSAAB) <i>Board Member</i>	Spring 2022 - Spring 2024
<ul style="list-style-type: none">- Discuss and manage matters affecting graduate and professional students at WashU via monthly board meetings.	
Society of Women Engineers (SWE) <i>Director of Personal Development</i>	Spring 2022 - Spring 2024
<ul style="list-style-type: none">- Plan and organize events for SWE focused on personal and professional development, and facilitate discussions.	
Women & Engineering Leadership Society (WELS) <i>Student Advisory Committee Member</i>	Spring 2022 - Spring 2024
<ul style="list-style-type: none">- Lead WELS marketing and communications, assist with general needs and connections, and plan social events.	
Army ROTC, Gateway Battalion <i>Cadet</i>	Fall 2021 - Spring 2024
<ul style="list-style-type: none">- CIC for NGA (National Geospatial-Intelligence Agency) Land Navigation Event- Awards: Daughters of Union Veterans of the Civil War (2022), ROTC Honors (2021-2023), Dean's List (2023), Cadet Scholar (2021-2022)	
Youth Engineering Initiative Inc. <i>Founder, CEO</i>	Fall 2015 - Present
<ul style="list-style-type: none">- Managed a 501(c)(3) co. bringing STEM projects to refugee centers, schools, libraries, and events in CNY.- Raised over \$10,000 in grants from the Gifford Foundation, Bristol Myers-Squibb, SRC, TACNY, and others.	
Community Leader <i>Colgate University Residential Assistant (RA) and Kitchen Manager</i>	Fall 2018 - Spring 2021