

# Mae Zeng Martel

mzengmartel.github.io | Baltimore, MD | mzengmartel@gmail.com

## EDUCATION

---

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

## WORK EXPERIENCE

---

<b>Northrop Grumman</b>   <i>Computer Engineer</i>	Summer 2024 – Present
<ul style="list-style-type: none"><li>- Design and integrate advanced electrical systems for defense and aerospace applications.</li></ul>	
<b>USAR</b>   <i>O-1 Military Police Officer (31A)</i>	Summer 2024 – Present
<ul style="list-style-type: none"><li>- 313th HHD TC MCB, Baltimore, MD</li></ul>	
<b>McKelvey Education</b>   <i>Assistant Instructor</i>	Fall 2022 - Spring 2024
<ul style="list-style-type: none"><li>- Held recitations, tutored, and assisted with grading for ESE 415: Optimization and ESE 326: Probability and Statistics for Engineers at WashU.</li></ul>	
<b>Crow Observatory</b>   <i>Observatory Staff</i>	Fall 2021 - Spring 2024
<ul style="list-style-type: none"><li>- Managed the WashU Crow Observatory and a 1863 Yeatman Refractor Telescope, located and presented astronomical objects to guests, troubleshooted observatory issues, and assisted with observatory logistics.</li></ul>	
<b>ACE Advanced Cyber Education Internships</b>   <i>Cyber Intern</i>	Summer 2023
<ul style="list-style-type: none"><li>- Intensively studied Information Operations, Cyber Attack, Cyber Defense, Digital Forensics, Reverse Software Engineering, and Cryptography at WPAFB.</li></ul>	
<b>Colgate Information Security</b>   <i>Cybersecurity Software Engineer Intern</i>	Summer 2021
<ul style="list-style-type: none"><li>- 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.</li></ul>	
<b>Syracuse Biomaterials Institute Interactive Biomaterials REU</b>   <i>Research Assistant</i>	Summer 2021
<ul style="list-style-type: none"><li>- Conducted Molecular Dynamics (MD) simulation research with the Nangia and Moz Labs.</li><li>- <b>Publication:</b> "Lipidation Alters the Structure and Hydration of Myristoylated Intrinsically Disordered Proteins." <i>Biomacromolecules</i>. Accepted 26 Jan. 2023.</li></ul>	
<b>Colgate Ho Tung VisLab</b>   <i>Planetarium Staff</i>	Spring 2019 - Spring 2021
<ul style="list-style-type: none"><li>- 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.</li><li>- Managed dome projectors, lighting, sound, and safety instructions for guests, and troubleshooted hardware issues.</li></ul>	

---

## 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

---

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