

# Mae Zeng Martel

[mzengmartel.github.io](https://mzengmartel.github.io) | Baltimore, MD | [mzengmartel@gmail.com](mailto:mzengmartel@gmail.com)

## EDUCATION

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<b>Washington University in St. Louis</b>   Master of Science in Engineering Management (MSEM) - Graduate 3-3 Dual-Degree Program	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 - Dean's Award with Distinction for Academic Excellence (2018, 2020, 2021) - Class of 1951 Memorial Endowed Scholarship (2021) - Colgate Benton Scholar Award (2018)	May 2021

## WORK EXPERIENCE

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<b>Northrop Grumman</b>   <i>Electrical Engineer</i> - Design and integrate advanced electrical systems for defense and aerospace applications.	Summer 2024 – Present
<b>USAR</b>   <i>O-1 Military Police Officer (31A)</i> - 313th HHD TC MCB, Baltimore, MD	Summer 2024 – Present
<b>McKelvey Education</b>   <i>Assistant Instructor</i> - Held recitations, tutored, and assisted with grading for ESE 415: Optimization and ESE 326: Probability and Statistics for Engineers at WashU.	Fall 2022 - Spring 2024
<b>Crow Observatory</b>   <i>Observatory Staff</i> - 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.	Fall 2021 - Spring 2024
<b>ACE Advanced Cyber Education Internships</b>   <i>Cyber Intern</i> - Intensively studied Information Operations, Cyber Attack, Cyber Defense, Digital Forensics, Reverse Software Engineering, and Cryptography at WPAFB.	Summer 2023
<b>Colgate Information Security</b>   <i>Cybersecurity Software Engineer Intern</i> - 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.	Summer 2021
<b>Syracuse Biomaterials Institute Interactive Biomaterials REU</b>   <i>Research Assistant</i> - Conducted Molecular Dynamics (MD) simulation research with the Nangia and Moz Labs. - <b>Publication:</b> "Lipidation Alters the Structure and Hydration of Myristoylated Intrinsically Disordered Proteins." <i>Biomacromolecules</i> . Accepted 26, Jan. 2023.	Summer 2021
<b>Colgate Ho Tung VisLab</b>   <i>Planetarium Staff</i> - 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.	Spring 2019 - Spring 2021

## SKILLS

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**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

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<b>Graduate Student Affairs Advisory Board (GSAAB)</b>   <i>Board Member</i> - Discuss and manage matters affecting graduate and professional students at WashU via monthly board meetings.	Spring 2022 - Spring 2024
<b>Society of Women Engineers (SWE)</b>   <i>Director of Personal Development</i> - Plan and organize events for SWE focused on personal and professional development, and facilitate discussions.	Spring 2022 - Spring 2024
<b>Women &amp; Engineering Leadership Society (WELS)</b>   <i>Student Advisory Committee Member</i> - Lead WELS marketing and communications, assist with general needs and connections, and plan social events.	Spring 2022 - Spring 2024
<b>Army ROTC, Gateway Battalion</b>   <i>Cadet</i> - CIC for NGA (National Geospatial-Intelligence Agency) Land Navigation Event - Advanced Camp (2023), Basic Camp (2022) - Daughters of Union Veterans of the Civil War Award (2022) - ROTC Honors Award (2021-2023), Dean's List Award (2023), Cadet Scholar Award (2021-2022)	Fall 2021 - Spring 2024
<b>Youth Engineering Initiative Inc.</b>   <i>Founder, CEO</i> - 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.	Fall 2015 - Present

**Community Leader** | *Colgate University Residential Assistant (RA) and Kitchen Manager*

Fall 2018 - Spring 2021

**Benton Scholars SEA Research**, SSV Corwith Cramer Sailing Vessel | *Colgate University Benton Scholar*

Summer 2019