

Alex Ren

Atlanta, GA | 408-464-5891 | aren40@gatech.edu | www.linkedin.com/in/alex-j-ren

EDUCATION

Georgia Institute of Technology	Atlanta, GA
MS Aerospace Engineering, GPA: 4.0/4.0	Expected May 2026
Johns Hopkins University	Baltimore, MD
Bachelor of Science, Mechanical Engineering, GPA: 3.93/4.0	May 2024
• Honors: General & Departmental Honors, Tau Beta Pi, Pi Tau Sigma (VP), Dean's List (6x)	

EXPERIENCE

<i>Georgia Institute of Technology: Vertically Integrated Projects – Hypersonics</i>	Atlanta, GA
Data and Communications Division Lead	Jan 2025 – Present
• Leading team of seven in researching communication in hypersonic flight and hypersonic data acquisition	
• Developing and implementing data transmission strategies in extreme aerothermodynamic environments	
• Collaborate with interdisciplinary teams to acquire flight data in hypersonic conditions	
<i>Tate, Inc.</i>	Jessup, MD
Design Engineer	Sep 2023 – May 2024
Data Center Engineering Intern	Jun 2023 – Aug 2023
• Invented expandable blanking panel for data center containment enhancing size adaptability and reducing carbon footprint through minimized leakage flow (patent pending)	
• Designed and built experimental testing setup to evaluate blanking panel performance of various connection types by quantifying and analyzing leakage flow	
• Developed streamlined organization system for engineering tools and prototypes, enhancing workflow efficiency and accessibility	
<i>Johns Hopkins University: Department of Mechanical Engineering</i>	Baltimore, MD
Teaching Assistant	Jan 2023 – May 2024
• Assisted Mechanics-Based Design, Manufacturing Engineering, and Design and Analysis of Dynamical Systems courses with class sizes of 45 to 55 students	
• Led office hours and review sessions and graded assignments to enhance student learning	
<i>Johns Hopkins University: Fluid Transport Lab</i>	Baltimore, MD
Undergraduate Researcher	Nov 2021 – May 2023
• Developed portable holography system for high-speed 2D imaging with 3D reconstruction at up to 20,000 fps for a 10mm field of view	
• Designed and conducted experiments on microbubble ($< 100\mu\text{m}$ diameter) coalescence and fragmentation	
• NSF REU Fellowship: Conducted research under mentorship of Prof. Rui Ni in summer 2022	

EXTRACURRICULAR ACTIVITIES

<i>AstroJays Rocketry Team, Johns Hopkins University</i>	Baltimore, MD
Vice President	May 2023 – May 2024
Propulsion Subsystem Lead	May 2022 – May 2024
Propulsion Engineer	September 2020 – May 2022
• Led development of club's first student-researched and developed single-stage rocket motor	
• Optimized nozzle geometry using Ansys CFD to enhance propulsion efficiency	
• Designed custom motor interfaces and thrust stands for rocket motor performance testing	
• 2021 Friends of Amateur Rockery 10k Category 2nd: Awarded based on apogee accuracy and payloads	

SKILLS

Software: Ansys CFX, Ansys Fluent, Matlab, Microsoft Office, Solidworks
Manufacturing: 3D Printing, Laser Cutter, Lathe, Mill, Water Jet, Wire EDM