University Address:
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Eric Zhou

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Home Address
10913 Elliston Way NE
Redmond, WA 98053

EDUCATION

Massachusetts Institute of Technology (MIT) **Class of 2026 - 4.8 GPA**

- B.S candidate in Mechanical Engineering concentrating in Control, Instrumentation, and Robotics; Minor in Management
- Relevant Coursework: Mechanics and Materials I, Dynamics and Control I, Numerical Computation for Mechanical Engineers, Physics Mechanics and E&M, Multivariable Calculus, Differential Equations, Linear Algebra and Optimization, PCB Design

EXPERIENCE

Group14 Technologies May 2023 - August 2023
Engineering Intern

- Designed mechanical devices in CAD for use in factory maintenance and machinery inspection.
- Created PLC and relay circuit diagrams, sourced electrical components, and worked in cross-functional engineering teams to increase the efficiency and safety of process-critical enclosure interlocks.
- Designed boiler continuous blowdown system to increase product quality and reduce required factory shutdown frequency from weekly to monthly.
- Interfaced with the operations team, chemical engineers, and engineering executives to update P&IDs and MOC documents.

MIT DeCoDE Lab February 2023 - September 2023
Undergraduate Researcher

- Worked with Amin Nobari and Professor Faez Ahmed to create a comprehensive database of computationally generated gear trains using adjacency matrices and other graph generation techniques.
- Simulated gear train performance, efficiency, and physical limits using Python simulations.

MIT Motorsports Formula SAE Team
MY24 Suspension Lead, Mechanical Team, Business Team September 2022 - Present

- Leading a team of 14 members in designing and manufacturing the suspension system for MIT's 2024 electric race car.
- Utilizing MATLAB, Optimum Kinematics, and Siemens NX to simulate vehicle kinematics and dynamics and determine design requirements.
- Sizing suspension arms for extreme load cases using hand calculations, and verifying through FEA and load cell testing.
- Designed rear wing mounting and analyzed loads and buckling yield strength through FEA and hand calculations.

The Capital Network (TCN)
Entrepreneurship Research Intern January 2023 - February 2023

- Conceptualized a new national marketing strategy to support TCN's fundraising and partnership efforts.
- Filmed and edited TCN's video submission for the SBA 2023 Growth Accelerator Fund Competition.

RespShop CPAP Machine Supplier
Inventory Specialist June 2022 - August 2022

Redmond STEM Center
Founder and Executive Director April 2020 - July 2022

- Founded a 501(c)3 non-profit initiative to create the first accessible youth maker space in the Greater Seattle Area focused on providing opportunities for underprivileged and underrepresented groups. Grew the team from 4 to over 40 high school volunteers in 12 months.
- Secured a lease for a 2,000-square-foot industrial space in Bellevue, Washington.
- Partnered with Amazon, Microsoft, Nintendo of America, government agencies, and local non-profits to increase reach and raise over $75,000 in funds. Hosted STEM events and summer camps promoting youth career-connected learning.

FIRST Robotics Competition Team 7461: Sushi Squad
Co-founder, Mechanical Lead, Vice Captain, Captain of Operations January 2019 - July 2022

- Set team vision and managed a team of forty students competing in the FIRST Robotics Competition.
- Raised over $50,000 of funding through yearly grants, sponsorships, and custom-designed merchandise.
- Designed robot subsystems. Developed streamlined workflows from CAD to CAM to assembly.

Icebreaker Bellevue
Sales Associate July 2021 - September 2021

AWARDS

Eastside Civic Leadership Award
$5,000 Non-profit Honorarium - November 2022

MIT EnergyHack 2022
3rd Place - November 2022

FIRST Dean's List Award
International Winner - August 2021

National Merit Scholarship Corporation
$2,500 Scholarship Recipient - March 2022

Redmond High School DECA
Project Management International Finalist - April 2021

Coca Cola Scholarship
Semifinalist - November 2021

SKILLS

Siemens NX, Fusion 360, OnShape, Optimum Kinematics, Altium Designer, Figma, Adobe Suite, Excel, Java, MATLAB, Python