

Nicole Zhou

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY Expected May 2029
Intended Bachelor of Science in Electrical and Computer Engineering and Minor in Physics GPA: 3.96
Coursework: Digital Logic, Embedded Systems, Data Science, Nanoscience and Nanoengineering

Interlake High School, Bellevue, WA June 2025
GPA: 4.0/4.0, IB: 42/45, SAT: 1600, AP Scholar with Distinction, U.S. Presidential Scholar Candidate

TECHNICAL EXPERIENCE

Cornell Autonomous Sailboat Project Team Ithaca, NY
Navigation Electrical Subteam October 2025 – Present

- Prototyping an embedded remote control system for selective activation of onboard electronics
- Using CAD to design a custom PCB for power distribution and physical panel to mount components

Computer Systems Laboratory Ithaca, NY
Napp Lab Researcher December 2025 – Present

- Developing autonomous construction robot that operates on decentralized coordination algorithms
- Implementing embedded communication protocols based on custom motor driver library

Fred Hutchinson Cancer Center Seattle, WA
Machine Learning Intern at Dey Lab September 2024 – June 2025

- Build and optimized a deep neural network model that integrated various feature-reduction techniques with multi-omic data to predict CRC risk in an Alaskan Native population with up to 80% accuracy
- Performed rigorous checks on performance through permutation testing and class imbalance analysis

MIT Beaver Works Summer Institute Boston, MA
E-Textiles and Wearable Technology Program June – August 2024

- Created a pulse oximeter device that integrated soft electronics into a custom textile sleeve for real-time monitoring of health metrics and presented to over 2,000 people both virtually and in-person

PREVIOUS BACKGROUND

HOSA, Bellevue, WA, Top Ten International Competitor September 2021 – June 2024
Venture Academy Tutoring, Remote, Volunteer English and Chinese Tutor September 2022 – June 2024
Newport Hills Swim and Tennis Club, Newport, WA, Tennis Coach June – August 2023

SKILLS AND INTERESTS

Programs: Java, Python, C++, Verilog, Ubuntu, ROS2, Fusion 360, OnShape, KiCad, Altium, Git

Campus Involvement: Cornell Maker Club, IEEE at Cornell, Outdoor Odyssey

High School Extracurriculars: Jazz Ensemble, Club and Varsity Tennis, Red Cross

Informal Portfolio: <https://nz278.blogspot.com/>