## Isaac Wu

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### **Academic Information**

#### **University of Washington**

• Bachelor of Science in Computer Engineering

Seattle, Washington Sept. 2023 – June 2027

# International School • High School Diploma, GPA 3.98/4.0

Bellevue, Washington Sept. 2019 – June 2023

• AP Exam Scores: CSA: 5, Calc AB: 5, Lang: 5, US History: 4, Biology: 4, Physics 1: 4

#### Skills

• Software: Java, C# (Certification by Microsoft)

- Computer Vision: Python, OpenCV, YOLO
- Front-End Web Development: HTML, CSS
- Office 365: Word, PowerPoint, Excel, OneNote, Outlook, Teams
- Autodesk: Inventor/Fusion 360, Maya, Synthesis
- Hardware: Wiring tools & Basic power tools.

## **Awards & Honors**

- **Titan Robotics Club:** Varsity Letter (2019–2023) / Rookie-All Star, Mentor's Award (2020) / Rising Star Award (2021) / Engineering Inspiration (2022–2023)
- International School: Mu Alpha Theta (2019–2023) / Tri-M (2020–2023) / National Honor Society (2021–2023) / Science National Honor Society (2021–2023) / National Technical Honor Society (2022–2023)

## **Experience**

#### **Cartogram Software Engineering Intern**

June – August 2021

- Hired to be a full-time software engineering intern for an indoor mapping company working to make traversing unfamiliar indoor locations easier by using Bluetooth beacons and software to create GPS-like interfaces that will guide users to internal locations.
- Worked on solving location drifting—when a user's location would become inaccurate over time.

#### FIRST Robotics (Jr. FLL, FLL, FTC, FRC)

2012 - 2023

- Actively participating in FIRST WA robotics since the 2nd grade. Became increasingly proficient with multiple departments of robotics (software, engineering, documentation, communication).
- Titan Robotics Club (participates in FIRST challenges)
  - ◆ FRC (FIRST Robotics Competition)

2019 – 2023 (750+ hours)

- ✓ Software Lead (2021–2023): Led a group of programmers in advancing and perfecting our robot's capabilities, helped new members become acclimated to the FIRST program.
- ✓ Software Team (2019–2023): Developed Java programming skills, learned a separate team library, created subsystem diagnostic tests, notated routines, aided with extensive fine-tuning.
- ✓ Drive Team Coach (2021–2023): Communicated and led drive team members, who operate the robot during competitions, attended many practices, and held strategy meetings with many other teams.
- ✓ Co-Technician (2019–2020): Shared this role with another student, mechanical-oriented, learned how to fix and troubleshoot any issues that arose on the robot during competitions, also involved in many practices to learn how to use tools and identify parts and machinery on the robot.
- ✓ CAD (2019–2020): Learned how to use Autodesk Inventor, a piece of software that allows for detailed replicas of robots, mechanisms, and game pieces in software, gaining a preview of parts before fabrication.

## **TEXTILE (Tutorials for EXperimentalisT Interactive LEarning)**

June – August 2022

- Selected to be a part of a University of Washington Chemical Engineering Disease Directed Engineering Lab (Nance Lab, PI: Elizabeth Nance) Data Science Oriented Training Program, a summer series in data science and brain cell analysis.
- Learned Python, data management, experimental design, and image processing alongside observing wet-lab techniques such as brain slicing and microscopy. Applied imaging processing and machine learning techniques to fluorescent brain cell images.
- Engaged in research skill workshops including how to read research papers, DEI and Ethics in Data Science Applied to Neuroscience, and career planning.

#### **Community Involvement**

#### **School PTSA Webmaster**

2021 - 2022

- Setup membership purchase and reporting, updated site content and calendar, solved user and technical problems.
- A weekly commitment, with occasional emergency problems that required attention or urgent update requests.

#### **FIRST Robotics FLL Mentoring**

2020 - 2021

- Prepared several presentations to walk middle school students through a variety of robotics topics, including software, CAD (computer-aided design), and brainstorming projects, biweekly.
- Led discussions, answered questions, incited passion within participants.

#### **CS Wonders Java Teacher's Assistant**

June – August 2020

- Assisted the instructor teach Java (programming language) in various levels.
- Required to: attend TA meetings, prepare for classes by completing lessons and projects, lead small group discussions, help students with assignments, review and grade student assignments.