Isaac Wu

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Academic Information

BS-CE: University of Washington, Seattle, WA (Currently a freshman)
High School: International School, Bellevue, WA (Graduated June 2023)
GPA: 3.983/4.0; AP Exam Scores: CSA: 5, Calc AB: 5, Lang: 5, US History: 4, Biology: 4, Physics 1: 4

Awards & Honors

- *2022-2023* Varsity Letter, Engineering Inspiration (Titan Robotics Club)
- *2022-2023* National Technical Honor Society
- *2021-2022* Varsity Letter, Engineering Inspiration (Titan Robotics Club)
- *2021-2023* National Honor Society, Science National Honor Society
- *2020-2021* Varsity Letter, Rising Star Award (Titan Robotics Club)
- *2020-2023* Tri-M, Music National Honor Society
- *2019-2023* Mu Alpha Theta, Math National Honor Society (2021 Mu Alpha Theta Outstanding Contributions)
- *2019-2020* Varsity Letter, Rookie-All Star Award, Mentor's Award (Titan Robotics Club)

Job Experience

Cartogram *June-August 2021 (40 hr/wk for 8 weeks)*

- Hired to be a software engineer 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 a user to a certain room or building.
- Worked on solving location drifting–when a user's location would become inaccurate over time.

Extracurricular Activities / Clubs

FIRST Robotics (Jr. FLL, FLL, FTC, FRC) *2012-2023*

- Actively participating in FIRST WA robotics since the 2nd grade. Become increasingly proficient with multiple departments of robotics (software, engineering, documentation, communication).
- Titan Robotics Club (participates in FIRST challenges)
  - FRC (FIRST Robotics Competition) *2019-2023* (*~12 hr/wk, 20 wk/yr, 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 (~5? hr/wk)*

- 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 to introduce students to cutting edge research from real scientific methodologies taught by the scientists that designed or use them in their everyday lives.
- Learned Python, data management, experimental design, and image processing alongside observing wet-lab techniques such as brain slicing and microscopy over a series of 10 weeks. Applied imaging processing and machine learning techniques to fluorescent brain cell images from recent research papers.
- 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 (1 hr/wk)*

- 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 (7 hours)*

- 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.

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CS Wonders *2020 summer: Java Teacher's Assistant (~8 hr/wk for 6 weeks, 49 hours)*

- 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.

Skills

- Advanced knowledge of Java, intermediate knowledge of Python (CV), C#, HTML, and CSS.
- Proficient in Office 365 products (Word, PowerPoint, Excel, OneNote, Outlook, Teams).
- Versed in certain Autodesk software (Inventor, Maya, Synthesis).
- Hardware knowledge, can handle wiring tools and basic power tools.
- Basic level of video editing in Adobe Premier.