University of Washington, Seattle
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Quinn Pfeifer

Software Engineer

Student at the **University of Washington's Paul G. Allen School of Computer Science**. Robotics **researcher** and **hobbyist** working on **Reinforcement Learning**, imitation **Mars rovers**, and **underwater vehicles**.

Hard Skills

Programming Languages: Java, C++, C#, Python (PyTorch), JavaScript, Typescript, HTML, CSS, NodeJS, React, and MongoDB

Courses: **Calculus 1**, **2**, **3**, **Linear Algebra**, CS 244 at EvCC (**Advanced Data Structures, Algorithms**), CSE 331 (**Software Design** and **Implementation**), CSE 311 (**Foundations of Computing**), CSE 332 (**Data Structures, Parallelism**), CSE 312 (**Probability**), CSE 351 (**Hardware/Software Interfacing**)

Other Software Skills: Data Structures, databases, git, GitHub, computer vision, autonomous motion/trajectory planning, APIs, embedded systems, Android app development, PID control, Software Development Life Cycle, Machine/ Reinforcement Learning, Linux

Soft Skills

- **Collaborating** on software projects with **tight deadlines**, emphasizing **teamwork and adaptability**
- Excelled in **teaching** with **focused lesson plans** and strong written and oral **communication skills**
- Demonstrated **leadership** and effective **conflict resolution**
- Applied **critical thinking** and precision in **problem-solving**

Volunteer Work

- Volunteered for **hundreds of hours** at FIRST Robotics competitions at a variety of levels and roles
- Worked with FRC Robotics team to present at **outreach events** at museums and fairs to share enthusiasm for robotics and **promote STEM to the broader community**

Education

University of Washington, Seattle — **Sept 2023 – Present**
Paul G. Allen School of Computer Science
Expected B.S. graduation date – June 2025
GPA: 3.89, Dean's List all quarters

Everett Community College (Running Start) — **Sept 2021 – June 2023**
President's Distinction (GPA: 4.0)

Awards and Honors

- **Three FRC Autonomous Awards** Sponsored by Ford (twice in 2022, once in 2023)
- **2023 Indiana Robotics Invitational Scholar**, IRI Host Teams Scholarship
- **AP Scholar**, AP Scholar with **Honor**

Experience

Undergraduate Research Assistant – Personal Robotics Lab at UW — **Oct 2023 – Present**

- Worked with **Ph.D. students** and **Professors** (**Siddhartha Srinivasa, Abhishek Gupta**)
- Developed ML software using Python/PyTorch
- Maintained familiarity with **current literature** in the fields of **Machine Learning** and **Robotics** to research new methods of **Machine Learning**, specifically with **Reinforcement Learning**
- Developed novel simulator-based teleoperation using MuJoCo
- Authored "Data Efficient Behavior Cloning for Fine Manipulation via Continuity-based Corrective Labels" Under submission to IROS 2024

Software Developer – Husky Robotics — **Oct 2023 – Present**

- Developed software for a world-class **prototype Mars rover** for competition in the University Rover Challenge
- Re-wrote logging software and implemented various quality-of-life changes across the stack
- Provisioned Nvidia Jetsons for use on the Rover

Software Developer – Underwater Remotely Operated Vehicles Team — **Oct 2023 – Present**

- Developed software for **world-class ROV** for participation at the MATE ROV competition
- Worked with **Raspberry Pi**s to handle data IO and autonomous systems and locomotion
- Interfaced directly with **low-level embedded systems** and **sensors**

Lead Software Developer – FRC Team 2910 — **Sept 2021 – July 2023**

- Spearheaded a **world-class robotics team** that achieved **3rd place globally** in 2022, securing **victory in over 10 major competitions** during the 2022 and 2023 seasons.
- Distinguished for authoring **award-winning autonomous code**, elevating the team's performance and competitive standing
- Proficiently acquired and applied advanced skills in **computer vision**, **autonomous motion**, **trajectory planning**, **PID control**, and **Android app development**