

# Kyle Reinholdtsen

Software Engineer

## About

Proficient full stack developer with 2 years of experience in web programming, object-oriented design, distributed systems, and machine learning. Thrives in collaborative environments and works effectively in teams to deliver high-quality software.

## Skills

### Languages

- Java, JavaScript, HTML, CSS, Python, C, C++, C#, SQL.

### Technologies

- React, Angular, Node.js, REST APIs, HTTP, Linux, Git, PyTorch.

## Education

06/2021–12/2023 **B.S. Computer Science & Engineering**, *University of Washington*, Seattle

- **Classes:** Distributed Systems, Operating Systems, Algorithms, Compilers, Machine Learning, Artificial Intelligence, Software Engineering, Computer Vision, Programming Languages, Systems Programming, Database Systems, Interaction Programming.
- **GPA:** 3.88 (Cum Laude, Dean's List).

## Experience

01/2022–03/2023 **Software Engineer**, *Husky Robotics*, University of Washington, Seattle

- Developed the mission control website for operating the team's rover using JavaScript, React, and Redux.
  - Designed and implemented a custom WebSocket-based messaging protocol to enable real-time, bidirectional communication between the mission control website and the rover.
  - Created UI elements to display rover camera feeds and telemetry data (position, power, velocity).
  - Implemented a 3D rendering of the rover with React Three Fiber, dynamically updated in real-time using telemetry data.
- Developed a Unity simulator that emulates the rover's cameras, motors, wheels, and sensors in a 3D virtual environment.
  - Enabled users to orbit the rover using intuitive mouse controls.
  - Added functionality to configure intrinsic camera parameters within the simulator for enhanced simulation accuracy.

## Projects

### MuseShare ([GitHub](#))

- Built an online music sharing website for discovering and interacting with indie artists.
- Designed and developed the user interface using React, ensuring optimal performance across both desktop and mobile devices.
- Integrated Firebase for database management and secure user authentication.

### MCQuest

- Created an online multiplayer game within Minecraft where players can explore a fantasy world, complete quests, slay enemies, and upgrade their character.
- Deployed a remote server which players can connect to with a default Minecraft client.
- Developed server-side game logic using Java such as physics calculations, item and skill behavior, and data persistence.