Kyle Reinholdtsen

Software Engineer

About

Full-stack software engineer with hands-on experience building production-ready web apps using React, Angular, Node.js, and AWS. Passionate about frontend UX, scalable backend design, and cloud-native deployments using Docker and serverless architecture. Strong foundation in distributed systems and team-based software delivery.

Skills

- **Languages:** TypeScript, JavaScript, Python, Java, HTML, CSS
- **Frontend:** Angular, React, Redux, Responsive Design, RxJS
- **Backend:** Node.js, Express, REST APIs
- **AWS:** S3, Lambda, DynamoDB, Fargate, ECS, API Gateway
- **DevOps & Tools:** Git, Docker, CI/CD, Linux
- **Certifications:** AWS Certified Cloud Practitioner

Technical Experience

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

- Built the mission control website for Husky Robotics, a student engineering team, to operate the team's rover using JavaScript, React, and Redux.
- Participated in peer code reviews, wrote and reviewed GitHub pull requests, and maintained high code quality through feedback cycles and issue tracking.
- Used Git for version control, contributed to feature branches, and helped enforce coding standards and write documentation.
- Designed and implemented a custom WebSocket-based JSON 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.

Projects

Paintle, paintle.net, GitHub

- Created Paintle, a website inspired by Wordle where users solve a daily puzzle by painting a 5x5 grid.
- Built a responsive frontend using Angular, designed for seamless play on both desktop and mobile browsers.
- Deployed a fully serverless architecture on AWS using S3 (frontend), Lambda (backend logic), API Gateway (routing), and DynamoDB (storage), achieving <200 ms cold-start latency and $0 backend cost under typical usage.
- Implemented secure authentication via Google OAuth 2.0 and JSON Web Tokens (JWT), incorporating best practices such as short-lived tokens, RS256 signing, and validation of token audience and issuer.

MCQuest, GitHub

- Developed a custom Minecraft server to support a multiplayer RPG with questing, combat, and character progression.
- Implemented backend systems in Java for handling in-game mechanics such as physics calculations, skill behavior, item interactions, and data persistence.
- Collaborated with a 5-person team using Agile practices including structured requirements planning, sprint-based development, weekly standups, and CI/CD pipelines to ensure quality and fast iteration.

Education

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

- **GPA:** 3.88 (Cum Laude)

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