

Matt Wilkinson

FULLSTACK & DEVOPS ENGINEER

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Summary

Languages Typescript • Python • Rust • Go • Dart • C • SQL

Technologies Docker • Github Actions • Gitlab CI/CD • GraphQL • FastAPI • Express • React • Flutter • WebAssembly

Databases PostgreSQL • MongoDB • Elasticsearch • Redis **AWS Services** ECS • Kinesis • EC2 • S3 • Lambda

Education

American University

Washington DC

B.S. COMPUTER SCIENCE

08/2018 - 12/2021

- GPA: 3.88, In-Major GPA: 3.98
- Minor: Finance

Work Experience

Roku

Austin, TX (Virtual)

SOFTWARE ENGINEER

09/2021 - Present

- Full Stack Engineer developing internal development tools for RokuOS firmware and application teams.
- Conceived, designed, and developed full-stack web & CLI applications to support RokuOS' migration from Perforce to Git.
- Tools handle extensive use of the Git submodules feature, combining parent and submodule repositories from multiple GitLab installations into a single reusable API.
- Combined & Refactored existing Python scripts used by single team members into a convenient CLI application used widely by the organization.
- Wrote and implemented team-wide code tooling, review standards, and CI checks to raise the quality bar of new and existing projects.
- Using GitLab CI/CD Pipelines, as well as the new AWS CDK to automate the building, testing, and deployment of all services.

Roku

San Jose, CA (Virtual)

DEVELOPMENT TOOLS ENGINEER INTERN

05/2021 - 08/2021

- Full Stack Engineer working on internal development tools for the RokuOS firmware teams.
- Rebuilt mission-critical CI build monitoring application using modern web technologies: Next.js, FastAPI, React, Typescript, Python and GraphQL. Led to a 67% increase in developer satisfaction with the tool.
- Ported existing code review tool from Perforce implementation to Git & Gitlab, using Next.js.
- Designed & Developed build metadata storage pipeline, as well as metrics dashboards to analyze the data, using AWS Lambda, Elasticsearch, and Kibana.
- Implemented Gitlab CI/CD Pipelines for all projects to automate the testing and deployment of the applications onto AWS Elastic Container Service.
- Used Terraform to create all cloud infrastructure on AWS.

American University

Washington, DC

RESEARCH ASSISTANT

10/2020 - 05/2021

- Developed fullstack web application from the ground up, utilizing modern web technologies.
- Application runs hybrid study/games that enable researchers to learn about children's learning habits, as well as a Citizen Science platform enabling others to contribute to research. Worked with researchers to implement their vision.
- Designed & Implemented AWS cloud infrastructure for the application.

Projects

AU Capstone Archive

AU Capstone Course

BACKEND ENGINEER

01/2021 - 05/2021

- Designed & Developed a full-stack web application storing Capstone projects from AU's Computer Science Capstone course.
- Implemented the backend service in Go. Created Unit and Integration tests for all parts of the service. Built easy to use API for frontend developer using GraphQL.
- Dockerized application and created CI workflow for all commits.

Twitter Analytics Service

Software Engineering Course

PRODUCT OWNER & LEAD DEVELOPER

08/2020 - 12/2020

- Elected Product Owner by fellow group members. Led the design, development, and deployment of the service.
- Completed service processes streaming data from the Twitter API, and takes analytics requests from the client on various engagement metrics.
- Containerized data pipeline, built with microservices, processes more than 6.5M Tweets per day.