

Tim Williams

Software Developer

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PROFESSIONAL EXPERIENCE

Open Source Developer, Mozilla


07/2024 – present | Remote

- Collaborated asynchronously to refactor, debug, and test in the Firefox codebase
- Refactored code responsible for browser's toolbar context menu into module along with associated inline event listeners to separate concerns and improve readability and scalability
- Updated callers of relocated functionality ensuring previous use maintained
- Replaced hardcoded CSS styling with globally available tokens per DRY principle
- Tested and debugged feature branches to ensure compatibility with production repository

Co-Creator/Software Developer, Snowclone

01/2024 – present | Remote

Snowclone is a secure, open-source backend-as-a-service (BaaS) with real-time functionality that streamlines provisioning infrastructure to the AWS cloud.

- Implemented a containerized multi-server backend architecture, incorporating APIs for REST, schema migration, and real-time notifications, all powered by a PostgreSQL database (Node.js, Express, Docker)
- Engineered a real-time server to monitor database changes and broadcast updates to clients using Server-Sent Events, providing real-time data synchronization between backend and frontend (Node.js, PostgreSQL, SSE)
- Ensured scalability via deployment into Elastic Container Service (ECS) Fargate, with Application Load Balancer coordinating client API requests
- Enhanced data security by configuring AWS security groups and private subnets, enabling secure backend multi-tenancy within protected network segments
- Built a CLI tool to automate provisioning and teardown of AWS cloud infrastructure, accounting for 55 resources per backend (Terraform, Dynamo DB, S3)
- Secured communication between CLI and backends via API keys and JSON Web Tokens
- Authored comprehensive technical case study detailing the problem domain, system design, and engineering decisions <https://snowclone-base.github.io/casestudy/introduction/> 

Software Developer, Self-employed

10/2021 – 11/2023 | Remote

Developed web applications, including:

- *Rekwestbin* - tool for collecting and debugging webhooks (Node.js, Express, MongoDB, Nginx)
- *Record Store* - inventory management tool (Node.js, Express, PostgreSQL, Pug)

SKILLS

Languages & Frameworks

Node.js, Javascript, TypeScript, React, Express, Go, PostgreSQL, MongoDB, HTML, CSS, Jest

AWS Cloud

ECS, EC2, S3, DynamoDB, RDS, CloudWatch, IAM, Route 53, VPC networking, API Gateway, Lambda

Other Technologies

Docker, Git/Github, Terraform, HTTP, RESTful APIs, Nginx, Postman, DigitalOcean Droplets, Bash, Linux

EDUCATION

Launch School

2021 – 2023

Multi-year, mastery-based software development curriculum. Read more at launchschool.com/employers 

Rice University, BA History

2008 – 2012

- 4.0 major GPA