

Tim Williams

Software Developer

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My foundation of software engineering fundamentals allows me to break down complex problems into smaller, solvable pieces. My curiosity drives me to understand, to find the “why” and to use that knowledge to guide my actions. I believe “to teach is to learn twice”— in college, I taught a class on the history of Southern Rock.

PROFESSIONAL EXPERIENCE

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)

Desktop Analyst, Silicon Labs

05/2014 – 10/2016 | Austin, USA

- Supported mixed Windows | OSX | Linux environment of 500 users
- Assisted DevOps team with Chef infrastructure deployment and network team with Cisco firewall tasks

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