Sammy Tran sammyqtran.github.io | sammyqtran@gmail.com | San Jose, CA

SKILLS

- Languages: Java, Go, C++, Python, SQL (PostgreSQL)
- Cloud & Infrastructure**:** AWS (EC2, S3, EMR, CloudWatch, IAM), Docker, Linux, Redis
- Frameworks & Tools: React, Node.js, Apache Maven, Log4J, Hadoop
- DevOps: Git, GitHub Actions, CI/CD, REST APIs, gRPC, Microservices

WORK EXPERIENCE

Amazon Web Services (Amazon EMR) **Apr 2022 – July 2023**
Software Development Engineer *Seattle, WA*

- Implemented Java features managing EC2 Linux instances in EMR clusters, enhancing cluster coordination and stability
- Optimized distributed file tracking systems using Java and OS metadata, enhancing storage efficiency across EC2 hosted clusters
- Optimized the log uploading algorithm to S3, improving partial log handling, reducing data loss incidents by 5%, and improving overall system resilience
- Resolved 90% of support tickets within 24 hours, diagnosing and troubleshooting distributed system failures to improve fault tolerance
- Developed and tested critical EMR fixes, launching integration tests on clustered EC2 servers to ensure system reliability at scale
- Assisted in onboarding new engineers and interns, providing guidance on distributed system debugging and resiliency best practices

PROJECTS

URL Shortening Service | Go, Redis, REST APIs, Unit Testing, gRPC, PostgreSQL

- Designed and implemented a scalable URL shortening backend in Go with PostgreSQL for durable storage
- Developed REST and gRPC APIs supporting high throughput with JSON request/response handling and automatic redirect functionality
- Architected distributed system components incorporating load balancing and health check endpoints
- Achieved 90%+ unit test coverage to maintain code reliability and simplify future enhancements

Task Management Web App | React, Node.js, Django

- Built a task management web application to track and organize tasks based on priority and completion status.
- Developed the frontend using React, bundling assets in a Node.js environment for efficient deployment.
- Designed and implemented a RESTful API with Django and Django REST Framework to enable real-time updates and interactions between the frontend and the database via JSON

Autocomplete CLI Tool | C++, Performance Optimization

- Developed an autocomplete feature for a dictionary searching program that suggests word completions as users type
- Automated builds with Meson, debugged issues using GDB, and optimized memory usage by fixing leaks with Valgrind

EDUCATION

University of California, San Diego **June 2020**
Bachelor of Science in Mathematics–Computer Science *La Jolla, CA*