DAVID SHANE

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EDUCATION

University of California, Berkeley **August 2020-Present (Expected December 2023)**
Bachelor of Arts, Computer Science | GPA: 3.74

EXPERIENCE

DevOps Engineer Intern **June 2023-August 2023**
CoStar Group (Apartments.com, Homes.com, Ten-X)

- Developed a Flask app with Redis caching, containerized with Docker, and ran in local Kubernetes cluster.
- Deployed the app to development AWS Elastic Kubernetes Service (EKS) app cluster using Helm Charts.
- Terraformed AWS Elastic Container Service (ECS) cluster and set up the app to run here in a private subnet.
- Saved company over $500/month migrating development Temporal service from separate EKS cluster to app EKS cluster. Migration process will be replicated in higher environments, greatly increasing savings.

DevOps Engineer Intern **June 2022-August 2022**
Quotient Technology Inc.

- Accomplished setting up Spacelift, a collaborative Infrastructure as Code (IaC) management tool, with our internal IaC workflow so that it could be tested out by the ~15 members of our team as part of the software rollout process.
- Wrote a Python script in Google Cloud Platform (GCP) to automatically create new Spacelift stack resources after a GitHub push event. Automated script provides a 10x improvement in time compared to manual stack creation.

Academic Intern **August 2021-May 2022**
Data Structures and Algorithms| University of California, Berkeley

- Taught foundational computer science concepts to dozens of university students' using Java.
- Deepened my own knowledge and understanding of data structures and algorithms through assisting students.

PROJECTS

Shell – *C*

- Built a shell, similar to the bash shell, that provides an interface for users to access the operating system's services.
- Utilized a variety of different Linux syscalls to handle program execution, redirection, and piping.

File Sharing System – *Go*

- Designed and developed a secure file sharing system, like Dropbox, where users can create, share, and revoke files with other users.
- Encrypted data using public key and symmetric encryption to keep confidentiality and integrity over insecure server.

Numc – *C*

- Wrote underlying C code for a simple version of the Python NumPy library, which is used for performing mathematical operations, like multiply, on arrays and matrices.
- Optimized code using SIMD instructions and OpenMP for parallelization.
- Achieved a comprehensive 48x speedup when testing all functions with their naïve counterparts.

SKILLS

- **Computer Languages:** Python, C, Java, SQL, RISC-V, Golang.
- **Tools and Services:** Docker, Kubernetes, AWS, Google Cloud Platform, Azure DevOps, Terraform, YAML, Git.

CERTIFICATIONS

- **AWS Certified Cloud Practitioner** (August 2023 – August 2026)