

ALEXANDER MACKEY

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SUMMARY

Software engineer with work experience as an SDE, SRE, DevOps, and native iOS engineer, and training in a breadth of areas including: computer security, databases and database languages, machine learning and statistics, and networks. Currently seeking SDE work, with special interest in work with APIs, CLIs, tests, monitoring, and AI/ML models.

EDUCATION

University of California, Berkeley B.S. Electrical Engineering and Computer Sciences, '16-'19
AWS Cloud Practitioner Iss. Nov. 2019 – Exp. Nov. 2022 (Credential ID CL4SgQBKMFRQK33)

EXPERIENCE

Fiddler | Senior Software Engineer | Apr. 2022 – Present

- Built functionality allowing users to separately enable explainability and monitoring, and use multiple reference datasets.
- Developed an end-to-end test automation framework validating ingestion and metrics for various models and datasets.

BentoML | Software Engineer | Jul. 2021 – Sep. 2021

- Wrote a CLI tool using **AWS**, **GCP**, and **Azure python SDKs** to manage **ML** models remotely and locally.

Amazon | iOS Native Engineer | Apr. 2020 – Jun. 2021

- Developed an **API** for the Alexa Mobile **iOS** app which controls the creation and display of all dialogs in the app.
- Wrote and maintained monitors for each user and each server health metric for each of the app's supported regions.

Apple | DevOps Engineer | Sep. 2019 – Apr. 2020

- Developed a **CLI** to control the Apple Online Store's infrastructure, written in **Go** and **Groovy**, using the **AWS Java SDK**. The **CLI** builds, modifies, and terminates store infrastructure, and reports monitoring and analytics information.
- Developed a companion tool in **Java** (**Vaadin**) which provides an interactive web UI with all the functionality of the **CLI** and Amazon's web interface, along with graphs displaying infrastructure health and usage.

MobiTV | Site Reliability Engineer Intern | May 2018 – Aug. 2018

- Developed a plugin for the open-source **Apache Traffic Server** in **C++** using the GeolP2 MaxMind DB to control server access based on users' geological information, and developed a CLI in **Go** to automate VCS, network, development, etc.

PROJECTS

Priority Calculator

- Built a generalized system using **Python** and **PyQt5** that prioritizes a set of opportunities across a group. Priority is determined for each opportunity by the sum of the inner product of each users' feature and weight vectors.

Neural Network Library

- Designed and implemented neural net library in **Python** and used it to model several machine learning problems, including: function regression, deep reinforcement learning, NLP—digit recognition and language classification.

Secure Filesharing System

- Designed and implemented a secure filesharing system in **Go** that read, write, and file permissions.

Relational Database Management System

- **Java** RDBMS using indices, B+ trees, efficient joins, and query optimization.

See more on  github.com/alxmke

SKILLS

Python, PyQt, Qt, Go, Java, Ruby, C/C++, Swift, SQL, Databases, Data Structures, Bash, Git, Linux, OOP, refactoring, optimization, parallelization, math, statistics, linear algebra, AWS, GCP, MS Azure, Pandas, Numpy