

KYLE GOLDEN

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EDUCATION

University of California, Berkeley

Expected May 2021

Computer Science, BA | GPA: 3.79

Relevant Coursework:

Data Structures

Algorithms

Operating Systems

Databases

Networking

Computer Architecture

Artificial Intelligence

Computer Security

Probability Theory

Linear Algebra

Multivariable Calculus

TECHNICAL SKILLS / TOOLS

Golang

Java

Python

C

SQL

|

Git

AWS

Docker

Cassandra

Nomad

Kafka

Elasticsearch

EXPERIENCE

Amazon

May 2020 - November 2020

Software Engineer Intern

- Developed a distributed event logging service, built on top of an AWS CDK infrastructure, that provides valuable insights and visualizations for a machine learning experimentation pipeline.
- Decreased the engineer hours needed to aggregate data and calculate metrics for experiments.
- Created a base project skeleton for all future team projects, facilitating the move toward AWS CDK development.

Pure Storage

May 2019 - Aug 2019

Software Engineer Intern

- Created a distributed system to process infrastructure logs, storing them in centralized data servers, parsing out important information, and inserting them into Elasticsearch for viewing and analysis through Kibana.
- Implemented a structured logging system to ensure consistency throughout infrastructure services.
- Drastically improved error diagnosis times, leading to higher infrastructure up time and reliability.

Berkeley Codebase

Aug 2019 - December 2020

Project Manager, Software Developer

- Currently leading a team of 6 developers to develop cloud controlled management features for InfluxData's Telegraf Agent.
- Developed a migration service to migrate a client's on-premises Cassandra database to a DataStax Astra instance.
- Developed a third party integration framework to enable exporting of Mixpanel cohorts into advertising platforms such as Snapchat and Twitter Ads.

PROJECTS

Cassandra Database Migration Service | Golang

January 2020 - May 2020

- Service that migrates an in-use, on premises Cassandra database to a cloud database hosted by DataStax Astra.
- Utilizes an edge proxy to simulate instant migration of data, properly route queries, and maintain data consistency.
- Allows for use of the database during the migration process, ensuring zero client downtime and disruption.
- Takes advantage of multi-threading to greatly increase the migration throughput beyond that of native Cassandra.

Infrastructure Log Collection & Analysis | Golang, Python

May 2019 - Aug 2019

- Developed a highly parallelized cluster of Kafka consumers with automatic partition rebalancing that parse new log entries and batch send to Elasticsearch, all while ensuring fault tolerance and scalability.
- Developed a system to backup log files, as they stream in real time, to a data server for long-term storage.
- Created a backfiller that re-processes log files from the past in case of an infrastructure failure or outage.
- Deployed a 3 node Kafka cluster and an 18 node Elasticsearch/Kibana cluster to manage throughput.

Scrabble | Python

Oct 2017

- Developed a fully fledged Scrabble game with a responsive GUI and a multiplayer system built on TCP.
- Increased game performance by utilizing texture memoization and trie data structures.
- Implemented server based multiplayer system using an AWS EC2 instance as the host machine.

Berkeley Maps | Java

May 2018

- Developed the back-end of a program similar to Google Maps.
- Implemented shortest path routing using the A* Algorithm and implemented a dynamic zooming system.
- Rendered map tiles efficiently to ensure a lag-less experience for the end user.