

PIYUSH JAGADISH BAG

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Currently on **H1B**, Looking for **Software Engineer L3** opportunity from **July 2024** with **PERM** sponsorship

EXPERIENCE

Arista Networks

Santa Clara, CA

Software Engineer, Developer Experience and Productivity

Mar 2022 - June 2022, Sep 2022 - Dec 2022 (Intern), Jan 2023 - Present

- Decreased product cost by 35% by moving application architecture to asynchronous streaming with Apache Kafka.
- Built an architecture to utilize Kafka streaming process aid in providing high throughput and low latency for visualization of application data
- Designed a scalable microservices architecture using Go, Docker, and Kubernetes resulting in a 50% reduction in response time and a 20% increase in system performance via gRPC using Protocol Buffers
- Constructed CI/CD pipeline using GitHub Actions, Linux, Shell Scripting, Docker, and Kubernetes to automate the build and deployment process

Apple

Sunnyvale, CA

Software Engineer Intern, Summer 2022

Jun 2022 - Sept 2022

- Replaced built-in Query Parser ANTLR with custom Query-Support developed using Go and MongoDB Aggregation Pipeline and MongoDB Query Language, enhanced performance of Search API in Data Access Layer by 30%
- The allowed front end team to search DB using custom-built structs and unifying within an interface in order to leverage MongoDB query operators in JSON format. Wrote unit tests for 30+ use cases, bringing test coverage to 100%. Make changes to system for this query parsing.
- Improved the performance of a legacy backend system by refactoring and optimizing code in Go, resulting in a 60% reduction in response time and a 40% increase in system stability

TECHNICAL SKILLS

Languages:

Go (Proficient), Python, TypeScript, JavaScript

Frameworks:

Gin (Proficient), Django, Flask, React, Node.js, GraphQL

Databases:

SQL - [Postgres, MySQL] (Proficient), NoSQL - [MongoDB, Cassandra]

Developer Tools and Other Technologies:

Git (Proficient), Docker, Kubernetes, Github Actions, Terraform, AWS, GCP

PROJECTS

gRPC based Golang Microservices —

Nov 2020 - Feb 2021

Golang, gRPC, protobuf, TravisCI, Git

- Created server and client-side code in Golang using protocol compiler gRPC Plugin and compared gRPC and REST API paradigm
- Constructed massively parallel systems with Go's concurrency model using Go routines and channels
- Implemented Unary, Server Streaming, Client Streaming Bi-Directional Streaming API

MERN Stack E-commerce WebApp Microservices —

Jan 2020 - Oct 2020

React.js, Hooks, Next.js, Node.js, Express.js, MongoDB, Docker, Kubernetes, TravisCI, Jenkins, TDD

- Developed and scaled a large, scalable E-Commerce app leveraging a collection of Microservices
- Solved concurrency issues in a distributed system environment in async, event-based communication between services
- Executed a custom event bus and documented and enforce structure constraints on events shared across microservices
- Redesigned a component tree that increased code reusability by 40%

EDUCATION

Santa Clara University

Santa Clara, CA

Master of Science in Computer Science, 3.78 / 4.00

Mar 2021 - Dec 2022

Courses: Advanced Web Programming, Web Architecture and Protocols, Distributed and Multi-tiered Systems

University of Mumbai

Mumbai, India

Bachelor of Engineering in Information Technology, 7.05 / 10.00

Courses: Data Structures and Algorithms, Relational Databases, Object-Oriented Programming, Design Patterns