

# PIYUSH JAGADISH BAG

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Currently on [H1B](#), Looking for [Software Engineer L3](#) opportunity from [June 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

- Automating submission of file directories created in Gin framework to Helix Core Perforce server, avoiding the manual intervention of users to compare file names with depot directories, saving user time by 60%
- Created internal web application for file management using ReactJS, TypeScript, Go, and MySQL hosted on a Linux server, allowing users to create, search, update, and delete file names. Received appreciation from the Manager.
- Developed dynamic drop-down and admin dashboard allowing users to control file naming order by using a combination of Django Admin-Inline package and JavaScript
- Deployed application using Docker in Linux-based OS on-premise server

### 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

Databases:

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

Developer Tools and Other Technologies:

Git (Proficient), Docker, Kubernetes, Github Actions, Amazon Web Services

## 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