

PIYUSH JAGADISH BAG

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Looking for **Software Engineer L4** opportunity from **May 2023** with **H1B visa** sponsorship

EXPERIENCE

Arista Networks

Santa Clara, CA

Software Engineer

Jan 2023 - Present

- Implemented efficient backend solutions in Go for an internal high-traffic supply chain management website, reducing latency by 40%
- Created, designed, and developed scalable microservices architecture using Go and Docker, resulting in a 50% reduction in response time and a 20% increase in system performance
- Designed and developed a distributed system using Go and RabbitMQ, resulting in a 50% reduction in communication latency and a 25% increase in throughput

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%
- Wrote unit tests for 12+ use cases, bringing test coverage to 100%. This 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
- 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

Tata Consultancy Services

Mumbai, India

Software Engineer

Dec 2016 - Feb 2021

- Enhanced microservices using gRPC for Authentication to handle 5K DAU users, notifying users with AWS SES
- Designed and wrote the code in Golang to log different host system event and alert information to Dynamo database

TECHNICAL SKILLS

Languages:	Go (Proficient), Python, JavaScript, TypeScript
Frameworks:	Gin (Proficient), Django, Flask, Node.js, React
Databases:	SQL - [Postgres, MySQL] (Proficient), NoSQL - [MongoDB, Cassandra]
Developer Tools and Other Technologies:	Git (Proficient), Docker, Kubernetes, TravisCI, 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

- 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**

Aug 2012 - May 2016

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