

PIYUSH JAGADISH BAG

📞 669-288-3491 | ✉️ pbag@scu.edu

🌐 piyushbag.github.io | [in linkedin.com/in/piyushbag](https://in.linkedin.com/in/piyushbag) | github.com/piyushbag

Looking for [Software Engineer Internship](#) opportunity from [Spring 2022](#) with [F1 visa](#) sponsorship

EDUCATION

Santa Clara University

Master of Science in Computer Science, [3.85 / 4.00](#)

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

Santa Clara, CA

Present - Mar 2023

University of Mumbai

Bachelor of Engineering in Information Technology, [7.05 / 10.00](#)

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

Mumbai, India

Aug 2012 - May 2016

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
- Formulated used types to future-proof code and reduce difficulty of refactors
- 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, Typescript

- Developed and scaled a large, scalable E-Commerce app leveraging a collection of Microservices
- Solved concurrency issues in a distributed system environment and handled challenges 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%

EXPERIENCE

Tata Consultancy Services

Mumbai, India

Software Engineer

Jul 2019 - Mar 2021

- Built an architecture to utilize Kafka streaming process aid in providing high throughput and low latency for visualization of application data that decreased product cost by 35%
- Enhanced microservices using gRPC for Authentication to handle 5K DAU users, communication of application with AWS SES, Send Grid using service-oriented architecture
- Designed and wrote the code in Golang to log different host system event and alert information to Dynamo database

Full-Stack Web Developer

Dec 2016 - Jul 2019

- Improved front-end designing functionalities led to code optimization by 20%; leveraged React.js and JavaScript
- Led development of module to build the distributed architecture as per the client requirement and collaborated with experienced cross-disciplinary technology teams resulted in scale and speed up the Django admin application and Flask application by 25%
- Created Microservices and REST API utilizing Python to handle 10x inbound volume
- Developed a distributed Task Queue using Celery and Rabbit MQ to enable tasks in background while application continues to resolve other tasks

TECHNICAL SKILLS

Languages:

Frameworks:

Databases:

Developer Tools and Other Technologies:

Libraries:

Python (Proficient), Go, JavaScript, C/C++, Java

Flask (Proficient), Node.js, React, Bootstrap, FastAPI

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

Git (Proficient), Kubernetes, TravisCI, Amazon Web Services

pandas (Proficient), NumPy, Matplotlib