

Piyush Jagadish Bag

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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

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

Santa Clara, CA

Present - March 2023

Mumbai, India

August 2012 - May 2016

PROJECTS

gRPC based Golang Microservices

February 2021

Golang, gRPC, protobuf, TravisCI, Git

- Created server and client code in Golang using protocol compiler gRPC Plugin and compared gRPC and REST API paradigm
- Implemented Unary, Server Streaming, Client Streaming Bi-Directional Streaming API

MERN Stack E-commerce WebApp Microservices

October 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
- Redesigned a component tree that increased code reusability by 40%

Facebook Data Search

March 2020

Graph API, ReactJS, AJAX, Bootstrap, AWS EC2, Git

- Deployed responsive web pages on Amazon EC2 to query albums and posts of Facebook entities belonging to Users, Pages, Events, Places, Groups from the Facebook Graph API based on the user's geolocation.
- Loaded the JSON using the AJAX component of ReactJS and rendered the results on a responsive UI using Bootstrap

EXPERIENCE

Tata Consultancy Services

Mumbai, India

Software Engineer

Dec 2016 - Mar 2021

Retail Unit: TCS BaNCS Loan Origination System

Jul 2019 - Mar 2021

Back-end Developer

Golang, Apache Kafka, DynamoDB, AWS SES

- 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 implemented lexer/parser for specification test files in Golang

Analytic and Insights Unit: TCS Next-Best-Action

Dec 2016 - Jul 2019

Full-Stack Web Developer

Python, Flask, Celery, Rabbit MQ, React.js, PostgreSQL

- 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 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: Python(Proficient), Go(Proficient), JavaScript, C/C++, SQL (Postgres), NoSQL (MongoDB), Java

Frameworks: React, Node.js, Flask, Bootstrap, FastAPI

Developer Tools and Other Technologies: Git, Kubernetes, TravisCI, Agile, (AWS) Amazon Web Services S3, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ

Libraries: pandas, NumPy, Matplotlib