PRATEEK RAO

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Skills

PROGRAMMING LANGUAGES

Python
JavaScript
TypeScript
Java
Go

SOFTWARE FRAMEWORKS AND TOOLS

Node.js
React
MongoDB
Redux
Mongoose
SQL
Flask
Jinja2
Firebase
Express.js
PostgreSQL
GraphQL
TypeORM
Apollo
HTML
CSS
SASS
Bootstrap

DEVOPS TECHNOLOGIES

Heroku
AWS EC2
GCP
NGINX
AWS Glue
AWS S3
AWS Lambda
AWS CFN
AWS EKS
Kubernetes
Bazel

Education

University of California, Irvine — Sept. 2016 to June 2020
Bachelors of Science in Computer Science
Focus: Information and AI
Dean's List: Fall 2016, Spring 2018, Spring 2020
Relevant Coursework: Design and Analysis of Algorithms, Introduction to Artificial Intelligence, Information Retrieval, Next-Generation Search Systems, Introduction to Operating Systems, Project in Operating Systems, Introduction to Database Management, Project in Database Management, Introduction to Cryptography, Digital Logic Design

Professional Experience

Switchboard Software — New York, NY
Senior Software Engineer — Dec. 2021 to Current
Technical Stack: React.js, GraphQL, Flask, PostgreSQL, AWS, Kubernetes
- Architected key end-to-end solutions for users to manage and visualize their data pipelines.
- Migrated end-to-end integration test suite from Nightwatch to Cypress, and implemented it in Switchboard's CI/CD pipeline on Kubernetes.
- Designed and implemented customer-centric UI features that addressed key user stories of Switchboard's business app.
- Implemented generalized form management logic using React-Hook-Form and Material UI, that handle 110+ forms on Switchboard's business app.
- Developed Switchboard's design system using Material UI, and lead migration efforts to new UI based on the new design system.

Software Engineer — New York, NY
Dec. 2020 to Dec. 2021
- Developed 7+ connectors to third party APIs to fetch data on customizable schedules.
- Integrated Bazel into the React build process, which reduced CI/CD time by 28%.
- Developed a pinger application that monitors the uptime of Switchboard's application, and deployed it onto AWS using Kubernetes and Helm Charts.
- Implemented type-checking across React codebase using TypeScript.
- Improved authoring experience on Switchboard app by introducing editor features such as syntax highlighting, autocompletion, and code macros.

Helping Hands Community — Los Angeles, CA
Volunteer Software Engineer — Aug. 2020 to Nov. 2020
Technical Stack: React.js, Node.js, Firebase, Google CloudEngine
- Contributed to the enterprise console for Helping Hands, a community driven resource matching platform during COVID-19.
- Implemented consumer-friendly modals on enterprise website and improved accuracy of customer requests by over 40%.
- Developed SQL-based data models for Postgres migration from Firebase to reduce server costs by ~30%.

Zero — Irvine, CA
Software Engineer - Volunteer — May 2020 to July 2020
Technical Stack: React.js, Apollo, GraphQL, TypeScript, Node.js, TypeORM, Postgres, Docker, Redis, CircleCI, Jest, Netlify, Google CloudEngine
- Contributed to Zero, a COVID-19 business safety app currently in beta in the state of New York (featured in TechCrunch).
- Fixed race conditions and bugs on server-side GraphQL resolvers.
- Rewrote business logic code for input form handling to reduce client-side latency.

Kaiser Permanente — Irvine, CA
Software Engineer Co-op — Jan. 2020 to May 2020
Technical Stack: Docker Swarm, Python, ElasticSearch, Logstash, Kibana
- Created a pipeline to efficiently process 100,000+ medical images through PACS systems.
- Developed a scalable, end-to-end distributed service platform using Docker Swarm.
- Optimized deserialized file transfer between distributed services by 50%.
- Designed a utilities library to transform medical images to trainable data formats.

UCI - Informatics Department — Irvine, CA
Full-Stack Developer Co-op — Sept. 2019 to Dec. 2019
Technical Stack: React.js, Redux, Node.js, Mongoose, MongoDB, Heroku
- Developed a user facing web application to cater to UCI students searching for housing.
- Implemented an API using Node.js and Express to handle user authentication and post data.
- Created Mongoose models to store user, post and comments data in MongoDB.

Projects

MyGymLog — June 2020 to Sept. 2020
Technical Stack: React.js, D3.js, Apollo, GraphQL, Node.js, TypeScript, TypeORM, Postgres, Docker, Redis, Jest, AWS, Netlify, CircleCI
- Created an application where users can log and analyze their weightlifting metrics.
- Developed a GraphQL API using Apollo, Node.js and TypeScript.
- Implemented graphs for user-created metrics using D3.js and React.

CheckifCovid — Mar. 2020 to May 2020
Technical Stack: AWS Lambda, AWS Glue, Python
- Contributed to an OSS project that predicts COVID-19 clusters using form data.
- Developed ETL jobs in AWS Glue to transform 10000+ records from DynamoDB to S3.
- Integrated AWS Lambda functions to pull form data from 3rd party vendors.

ICS Search Engine — Jan. 2018 to Mar. 2018
Technical Stack: Python, Flask, Jinja2, MongoDB
- Implemented a search engine based on ranked retrieval for a corpus of ~38,000 documents.
- Developed an inverted index-based ranked retrieval method for the search engine.
- Developed a front-end landing page for the search engine using Flask, Jinja2, HTML and CSS.

Volunteering

Hack at UCI · Organizer — Jan. 2017 to Dec. 2019
Irvine, CA
- Planned, organized and promoted HackUCI, a yearly hackathon at UC Irvine.
- Led workshops on topics such as web crawlers, database management, Flask and Reddit API.