ANKUR PATEL

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Education

Arizona State University, Tempe, AZ   08/2023 - 05/2025
Master of Science in Computer Science   *GPA 3.89/4*

Birla Vishvakarma Mahavidyalaya, India   06/2018 - 06/2022
Bachelors of Technology in Computer Engineering   *GPA 8.01/10*

Experience

Crest Data Systems   06/2022 - 07/2023
Software Engineer   *Ahmedabad, India*

- Worked for **Morphisec** on development of an **endpoint security multi-tenant platform** as a front-end engineer with **Angular, TypeScript, NGXS, WebSocket** serving **1M+ tenants**.
- Implemented a separate **Single Sign-On (SSO)** feature for the application using **Frontegg APIs**.
- Integrated Notification center with websocket to alert on updates and latest threats.
- Developed, enhanced, and integrated custom and generic UI components into various dashboards based on tenant level while enforcing **Role-based Access Control** (RBAC) on all the features.
- Participated in Agile software development processes including **Sprint planning, Grooming, PI planning, and Retrospectives** completing assigned tasks within established timeframes while maintaining code quality standards.

Crest Data Systems   01/2022 - 06/2022
Software Engineer Intern   *Ahmedabad, India*

- Assisted in developing an in-house tool for syncing Vtiger CRM and Jira, eliminating communication gaps.
- Implemented scheduler and **REST APIs** using **Flask**, and designed the UI with **Angular, Material UI, Storybook** and hosted on **NGINX server** with **AWS** EC2 instance.
- Performed unit testing with **jest** and end to end testing with **cypress**.

Bhaskaracharya National Institute for Space Applications and Geo-informatics   06/2021 - 07/2021
Web Development Intern   *Gandhinagar, India*

- Contributed to the Remote Online Assessment application with **React.js, Spring Boot, and PostgreSQL**.
- Programmed **REST APIs** for restricting and managing access to quizzes from the Admin Panel.

Confidosoft Solutions   06/2020 - 02/2021
Software Development Intern   *Vadodara, India*

- Worked on a smart-sensor monitoring system for manipulation and signal processing in real-time with **React.js, Node.js, Python, Kafka, and MongoDB.**

Projects

AI Assitant | *LlamaIndex, OpenAI, TypeScript, API Gateway, Lambda, React.js*   **06/2024**

- Building a Retrieval Augmented Generation (RAG) system with LlamaIndex, OpenAI LLMs, OpenAI Embeddings, and Qdrant Vector Database.
- Adding Agent/tool to schedule meetings and to send query email.
- Developed fronted with React.js and backend with Lambda, API Gateway.

Hybrid Batch Processing | *React.js, Lambda, DynamoDB, AWS Cognito, API Gateway, S3, Tailwand* | github   **04/2024**

- User authentication with Cognito User Pool in React.js UI, exchanges token to get federated identity with identity pool.
- File is uploaded to S3 and metadata in dynamoDB via lambda, batch processing via EC2 instances.

Nanobase | *Angular, Flask, S3, MySQL, Elasticsearch* | github   **02/2024**

- Building community database for nanostructure to enhance collaboration, a tool to upload, edit, characterize, and visualize structures.

Bitcoin Price Sentiment Analysis | *Deep Learning, Azure, Android, Firestore, Python* | github   **10/2021**

- Led development of an LSTM model that analyzes and predicts cryptocurrency trends with Reddit sentiments, news feeds, and historical data.
- Built a pipeline to perform sentiment analysis. Hosted backend on Azure and developed an Android Application.

Technical Skills

Languages: Java, JavaScript, TypeScript, Python, GO, HTML/CSS, SQL
Frameworks & Libraries: Langchain, LlamaIndex, OpenAI, Angular, REST APIs, QDrant Vector Database, WebSocket, Puppeteer, RxJS, NGINX, React.js, Tailwand, Node.js, Postgres, Elasticsearch, Kafka, Flask, Docker, Lambda, AWS CDK
Developer Tools: AWS, JIRA, BitBucket, Git Bash, VS Code, GitHub, Figma, IntelliJ, Nx, Postman

Certifications

- AWS Certified Solution Architect Associate | link