# Ajay Mittapally

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#### **PROFESSIONAL SUMMARY**

I am a Full Stack Developer with 5 years of expertise in crafting high-performance websites. Combining deep knowledge of UI libraries (React, Next.js) with strong backend capabilities (Java Spring Boot, Node, Express) and AWS to deliver responsive, scalable solutions that delight users. Committed to writing modular, fully tested code using industry-standards. Proven track record of delivering solutions that exceed both technical requirements and user expectations.

#### **WORK EXPERIENCE**

**Quartet Al(Contract)** 

Atlanta, USA

Software Engineer

Aug 2024 – Present

- Integrated **React Query** for efficient data fetching and caching, **reducing load times by 30%** and refining user experience.
- Implemented server-side rendering (SSR) and static site generation (SSG) with Next.js to improve SEO and time-to-first-byte (TTFB) and page load performance, enabling smoother user experience on slower networks.
- Enhanced application performance by implementing code-splitting, lazy loading, and memoization, reducing the overall load time by 25% and increasing user interactivity.
- Partnered with backend team to design **robust API contracts**, SQL Models; developed **mock endpoints** to enable seamless parallel development of frontend and backend.
- Designed efficient database schemas for microservices, optimizing data integrity and fast retrieval with ACID principles

# J P Morgan Chase(Contract)

Atlanta, USA

Software Engineer

Aug 2023 – May 2024

- Collaborated with senior developers in design phase and developed RESTful APIs for user authentication (JWT based),
   and product catalog management, using Java Spring boot, Spring Security, JPA(Hibernate) and PostgreSQL
- Architected and normalized database schemas in PostgreSQL for efficient query performance across key modules
- Optimized REST API endpoints by implementing **pagination**, **databases indexes**, and caching support for product search and filter endpoints that **reduced server load and response times by 25%.**
- Integrated Swagger3 with Spring boot for documenting APIs and schema generation, to improve consumer experience
- Created regression and unit testing suite, leveraging Junit, Mockito, and TestNG to validate functionality and security
- Using **Redux Toolkit and React Hooks**, implemented efficient and scalable **state management**, ensuring consistent and effective data flow, and **component isolation** across e-commerce site.

## **Tata Consulting Services(Full Time)**

Hyderabad, India

Software Developer

Sep 2021 – Dec 2022

- Led front-end migration of finance application, refactoring components from legacy **PHP** to **React + TypeScript**, ensuring seamless compatibility with legacy APIs and new Endpoints.
- Coded **optimized UI elements** to retrieve, and render real-time financial data from **third-party APIs**, enhancing responsiveness and customer experience, leveraging **React.js**, **JavaScript (ES6+)**, **and Next.js**.
- Implemented state management using Redux, cutting duplicate API calls, enhancing page efficiency and load times.
- Expanded REST API endpoints in Java Spring Boot, allowing users to calculate custom financial metrics on the fly
- Worked closely with the junior developers, to mentor them on React + Spring boot and business domain knowledge.

#### Associate Software Developer

Jan 2020 - Sep 2021

- Migrated on-premise PL/SQL hospitality product to AWS cloud, created core microservices in Node and Express.js.
- Containerized the microservices using Docker, and deployed them to Amazon EKS using Kubernetes for scalability
- Re-imagined intuitive UI, reducing clicks per task in Angular to improve operational efficiency for cloud product
- Re-engineered Jenkins CI/CD pipelines with groovy, to reduce the build and deploy time by 30% saving 25 man-hours.

#### **EDUCATION**

# **Kennesaw State University**

Marietta, Georgia

Master of Science, Major: Computer Science

May 2024

<u>Course Work</u>: Advanced Algorithms, Cloud Computing, Database systems, Machine Learning, Cryptography

Anurag Group of Institutions, CVSR

Hyderabad, India

Bachelor of Engineering, Major: Electronics and Communication | GPA: 3.6/4.0

May 2019

Course Work: Object Oriented Programming Java, Computer Networks, Cloud Computing IOT, Big data analytics

# **PROJECTS**

#### **GERRNCART E-commerce Shopping site**

- Created grocery shopping website with MERN stack Mongo, Express, React, Node, Tailwind, Material UI components
- Implemented JWT authentication, Stripe payment gateway, cart, inventory management, and admin dashboard

# YouTube Clone

- Implemented end-to-end clone of YouTube with video streaming, commenting feature, and subscriptions to channels.
- Employed React as the front-end technology and Redux for state management, and the YouTube API for fetching data, implementing responsive layout using CSS Grid and Flexbox.

# Reusable React Components

- Created reusable React components:
  - Interactive Accordion with customizable styling and animation options.
  - Star Rating system with half-star support and interactive hover effects.
  - Todo List application with local storage persistence, and category filtering.
  - Random Color Generator which generates random color palettes in both Hex and RGB formats.

#### **Chef Claude AI**

- With Prompt engineering generated recipes for user with given ingredients and cuisine of choice using Claude AI
- Developed chef.ai with React, Express.js, and Node.js, styled with Tailwind and Material CSS for modern responsive UI.

## Deep Learning Model for CIFAR-100 Image Classification

- This project aims to develop a custom image classification model for the CIFAR-100 dataset by experimenting with deep learning models VGG16, VGG-19 and ResNet
- It uses techniques like transfer learning, hyperparameter tuning (learning rate, batch size), and data augmentation to optimize model performance.
- Evaluated the models on accuracy, precision, recall, F1-score, finally achieving 0.85 on F1-score and

# **AWS S3 Automation Using Bash**

- Implemented Bash scripts to create, update, and remove S3 buckets, with AWS CLI and automation tools.
- Automated file sync between S3 bucket and local directory to enhance efficiency and reliability of data backups.
- Utilized bash script to list objects in S3 buckets, for easy access of stored data and manage information conveniently.

## **COMPETENCIES**

- Languages: Java, Python, JavaScript, SQL, Bash Scripting, HTML, CSS
- Frontend: React, Redux/Context API, Angular, Bootstrap CSS, tailwind CSS
- Backend: Spring, Spring Boot, Node, Express, Flask, Django
- **Cloud**: Amazon Web Services, Azure, GCP, AWS CLI, Bash Scripting, and S3 Management, Cloud computing, Cloud practitioner, Amazon EKS, ECS, Docker, container
- Skillset: Algorithms, Data Structures, Problem-solving, architecture design, microservices, REST webservices
- Tech Stacks and Work environment: Spring boot, Django Rest, MVC, CI/CD, Angular, React, SciPy, Pandas, NumPy, Jenkins, Kubernetes, Docker, Oracle DB, PostgreSQL, MySQL DB, Mongo DB, Tomcat, WebLogic server, SQL Alchemy, Git, Version control, GitHub, JIRA, Agile, Scrum, Kanban.

## **CERTIFICATIONS AND ACHIEVEMENTS**

- AWS Cloud Practitioner
- Certified python developer (Hacker rank)
- Networks and Deep Learning Deep learning AI
- Bash Basic Certificate (Hacker rank)
- SQL Basic Certificate (Hacker Rank)
- Led of team of 50 to win silver in Entrepreneur Summit national level, at IIT Bombay
- Governed 3 sectors retail, event management, and treasury as President of DAKSHAT, College Entrepreneurship Cell
- Served as convenor for CVSR college cultural fest 2018 managing 12 different committees for various tasks
- Won Silver in D-Zone arena 2k18, inter college state level table tennis championship
- Headed Tech-Workshop under Institute of electronics and telecommunications (IETE) for 200 students on robotics