# KOUSHIK ANITHA RAJA

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Software Engineer with 3+ years of experience specializing in Full Stack, Cloud, and AI engineering. Expertise in Python, Java, TypeScript, React, Node.js, AWS, Docker, Kubernetes, and CI/CD, with a proven track record of building scalable backend systems, real-time analytics, and AI-powered apps. Adept at optimizing performance, automating workflows, and leading cross-functional teams to deliver high-impact solutions.

#### SKILLS

Programming Languages: Python, Java, TypeScript, JavaScript, C, HTML

Frameworks and Libraries: React.js, Node.js, Express.js, Next.js, Angular, Spring Boot, Django, Firebase, Cypress, GraphQL, Vitest, Socket.io Cloud and DevOps: AWS (Lambda, EC2, S3, CloudWatch, ECS, CDK), Docker, Kubernetes, Jenkins (CI), GitHub Actions, Git, CI/CD Databases and Tools: MongoDB, MySQL, PostgreSQL, Redis, Apache Kafka, Elasticsearch, Kibana, Prometheus, Grafana, Postman, Tailwind, Winston, Loggly, Sass

#### PROFESSIONAL EX PERIENCE

### Al Software Engineer

Turing, Remote, United States

Apr 2024 - Present

- ▶ Developed a monitoring system for Data Analytics models to track real-time metrics such as loss, accuracy, training time, and resource usage.
- ▶ Designed API wrapper for Google Gemini in NodeJS, Redis, and MongoDB, integrating with analytics pipeline, handling 4k+ requests/min.
- ► Collaborated with data scientists, translating machine learning metrics into insights that drive data-driven decision making and transparency.
- Established automated pipelines for model evaluation and deployment using Docker, Kubernetes, and CI, enhancing operational scalability.

  Optimized backened systems by introducing asynchronous processing, advanced caching, and message queues to cut processing bottlenecks.
- Optimized backend systems by introducing asynchronous processing, advanced caching, and message queues to cut processing bottlenecks.
- Applied logging, alerting, and root cause analysis with ELK, Prometheus, Grafana for anomaly detection and model performance monitoring.
   Led code reviews and enforced modular, test-driven development (TDD), boosting code quality and knowledge sharing in distributed teams.
- ▶ Documented and enforced data security, access control, and privacy compliance (GDPR/CCPA) in model training and inference workflows.

#### Software Engineer I

Green Action Studio, New York, United States

July 2023 – Feb 2024

- ▶ Built driver pricing and discounts dashboard in partner portal with React and Node.js, improving partner engagement and system efficiency.
- ▶ Integrated Apache Kafka for real-time microservices data sync, enabling rapid, reliable event propagation and scaling high-volume processing.
- Automated GitHub Actions CI/CD pipelines, accelerating deployment, increasing reliability, and enabling faster cloud-native app delivery.
- Deployed AWS CDK serverless apps for charging station maintenance, ensuring uptime, scalability, and fault-tolerant cloud infrastructure.
- Engineered API gateway in TypeScript, bridging React frontends with Node.js backends and managing AWS S3, EC2, CloudWatch ops.
   Collaborated cross-functionally with Product, Design, and DevOps to translate requirements into technical solutions and drive agile delivery.

# Software Engineer Intern

Nov 2020 – Dec 2020

- Verzeo Technologies
- ► Crafted responsive UI in React, integrated RESTful APIs via Node.js/Express, deploying portfolio websites in Agile, fast-paced environment.
- Resolved critical bugs using centralized logging (Winston, Loggly), improving debugging workflow and reducing resolution times in sprints.
- ▶ Migrated backend from monolithic to modular Node.js and MongoDB, enhancing scalability, maintainability, and application architecture.
- Tuned MongoDB queries to minimize response time, enhancing site performance, and supporting higher concurrent user loads during peaks.
- ▶ Collaborated with teams using Agile, joined stand-ups, sprint planning, code reviews, ensured timely releases, and process improvement.

## Software Engineer Intern

Aug 2020 - Sep 2020

# Indian Institute of Technology

- ▶ Developed and deployed a scalable web app in React and Spring Boot to streamline internal workflows and boost organizational productivity.
- ▶ Implemented RESTful API endpoints using Spring MVC, ensuring secure data flow between the React.js frontend and MySQL backend.
- ▶ Created mobile-first UI with CSS Grid, Flexbox, and Sass to improve accessibility, cross-device compatibility, and internal tool engagement.
- ▶ Integrated CI/CD with GitHub Actions/Docker, automating code testing, build, and deployment to cut manual errors and speed up delivery.
- ▶ Optimized SQL queries and applied Redis caching to minimize database latency, resulting in fast load times for critical internal dashboards.

## **PROJECTS**

## Fable: Social Story-Telling Platform

- ▶ Developed a multi-browser web app with React, NextJS, and MongoDB to enable immersive social storytelling and dynamic user content.
- ▶ Implemented concurrent reading via Socket.io on a Node.js/Express.js backend, boosting session activity and real-time user interaction.

#### Automated Content Moderation System

- ▶ Built and deployed a BERT-based NLP model using TensorFlow, automating text moderation for community platforms at high accuracy.
- ▶ Integrated scalable model inference with FastAPI and Docker, maintaining consistent latency under peak concurrent user loads.

## EDUCATION

Stevens Institute of Technology, Hoboken, NJ, United States | Master of Science in Computer Science, CGPA: 3.6/4.0

May 2023

► Coursework: Web Programming, Database Management Systems

K arpagam College of Engineering | Bachelor of Technology in Information Technology, CGPA: 8.0/10.0

May 2021

Coursework: Object Oriented Programming, Linux/Unix OS