MALLIKARJUNA REDDY GAYAM

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SUMMARY

Full Stack and AI/ML Engineer with hands-on experience in building scalable, production-grade web applications and intelligent systems. Proficient in designing modern frontend interfaces with **React/Next.js**, developing robust backend services with **Node.js/Python**, and deploying ML models via **FastAPI and AWS Lambda**. Delivered impactful features across e-commerce and finance platforms, including intelligent automation, real-time analytics dashboards, and serverless infrastructures. Strong focus on clean architecture, performance optimization, and end-to-end delivery in Agile teams.

EDUCATION

Master's in Information Systems (GPA: 3.9) | Saint Louis University   Aug 2023 – May 2025

Bachelor's in Computer Science and Engineering | Lakireddy Bali Reddy College of Engineering   Jun 2018 – May 2022

TECHNICAL SKILLS

- **Programming Languages:** JavaScript, TypeScript, Python, Java
- **AI & ML**: TensorFlow, OpenAI API, HuggingFace Transformers, Scikit-learn, NLP, MLOps
- **Cloud & DevOps:** AWS (Lambda, S3, RDS, DynamoDB, Kubernetes), Vercel, GitHub Actions, Docker
- **Databases:** PostgreSQL, MongoDB, MySQL
- **Web Development:** HTML5, CSS3, Next.js, React.js, Node.js, Express.js, GraphQL, Web Sockets, REST API
- **Other:** SEO, Power BI, Data Structures & Algorithms, Git, GitHub, Jira, Figma

PROFESSIONAL EXPERIENCE

Software Engineer | Cognizant, Hyderabad, India   May 2022 – Aug 2023

- Developed dynamic web apps using **React.js**, **Next.js**, and **Node.js**, improving user engagement and reducing bounce rate by 30% through SPA optimizations and lazy loading.
- Engineered secure backend APIs with **Express.js**, implementing token-based authentication, input validation, and role-based access.
- Designed and deployed **TensorFlow-based classification models** for customer support and fraud detection, reducing manual review workloads by 35%.
- Refactored database models in **MongoDB/PostgreSQL**, optimizing data retrieval and caching to reduce average query time by 50%.
- Deployed microservices using **Docker**, **AWS Lambda**, and **Kubernetes**, enabling auto-scaling and ensuring 99.9% service availability.
- Led automation of CI/CD pipelines with **GitHub Actions** and **Jenkins**, cutting down deployment cycles by 40% and reducing production errors.
- Worked across full Agile cycles, regularly contributing to sprint planning, testing, and release documentation.

Software Engineer Intern | Cognizant, Hyderabad, India   Nov 2021– Apr 2022

- Built a fully interactive internal dashboard using **React**, **FastAPI**, and **MongoDB**, automating record tracking and reducing admin workload by 30%.
- Integrated **NLP search features** using **spaCy**, **Scikit-learn**, and fuzzy string matching to enhance search precision over semi-structured records.
- Developed a secure API layer with **JWT-based auth** and **role-specific endpoints**, enforcing access controls for multiple user roles.
- Deployed services on **AWS Lambda** and **DynamoDB**, reducing infrastructure overhead and scaling automatically during peak loads.
- Participated in full sprint cycles from UI planning and API development to code reviews and test coverage, gaining exposure to production-grade deployments.

PROJECTS

Acco Finder – AI-Powered Housing Platform

- Built a housing discovery platform using **React**, **Next.js**, and **MongoDB**, reducing student housing search time by 50% through location-based filtering and user-tailored listings.
- Integrated a recommendation engine using **Python**, **pandas**, and **cosine similarity**, leveraging user input and listing metadata to deliver personalized housing suggestions.
- Implemented real-time chat and map-based search functionality, improving platform engagement and interactivity.
- Deployed on **Vercel** with serverless functions and caching, reducing backend latency by 35% under peak usage.

Entry-Level Jobs Dashboard

- Built a full-stack job discovery platform using **Next.js**, **TypeScript**, and **Firebase**, aggregating listings from LinkedIn, Indeed, and Google Jobs with real-time updates and filtering.
- Integrated AI-driven resume matching using **OpenAI** for skill extraction and **TF-IDF + XGBoost** for entry-level classification, enabling personalized job scores and gap analysis.

- Developed interactive analytics dashboards with **Chart.js** and **Recharts**, visualizing job trends, hiring regions, and skill demands using real-time Firestore data.
- Implemented secure **Firebase Authentication**, profile management, and resume upload with version control, enabling users to track matches over time.

AI-Powered Resume & Cover Letter Generator
- Built a document generation platform using **Next.js**, **Firestore**, and **Docker**, enabling users to create tailored, ATS-optimized resumes and cover letters with a 93% reported success rate.
- Integrated **OpenAI GPT-4** for real-time content generation, leveraging prompt engineering, keyword optimization, and semantic alignment to match job descriptions at scale.
- Used **Selenium with Chrome headless** to automate PDF rendering of resumes with pixel-perfect formatting and export functionality.
- Deployed the entire system in a containerized environment using **Docker**, with scalable serverless functions for content generation and **Firestore** for persistent data and user session management.

CERTIFICATIONS & ACHIEVEMENTS
- **TensorFlow Developer Professional Certificate** – Coursera
- **Supervised Machine Learning: Regression and Classification** – Coursera
- Emotion-Based Music Player Using ML – Presented at **ICSCDS 2022**