ASHWIN KUMAR RAMESH KUMAR

Full Stack AI Developer

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Professional Summary

Full-Stack AI Developer skilled in designing and building scalable web applications integrated with AI/ML models. Strong foundation in backend development, REST API design, interactive front-end interfaces, and deploying AI-powered features for real-time functionality.

Experience

Full-Stack AI Intern

VCodez · Chennai, India Jan 2025 – Jun 2025

- Developed and deployed scalable full-stack applications using Next.js, FastAPI, and MySQL, supporting 1000+ concurrent users.
- Implemented and connected RESTful APIs with AI/ML models, enabling real-time predictions and intelligent automation.
- Engineered and optimized machine learning models in Python (TensorFlow, PyTorch, scikit-learn), achieving high accuracy in production workflows.
- Collaborated in agile sprints with Git/GitHub and cloud deployment, improving delivery speed by 20% and enhancing teamwork.

Projects

SmartGov: AI-Driven Office Availability Monitoring

Tech Stack: React.js, Express.js, MongoDB, Python

- Created a dual-portal platform for citizens and officials, enabling 100% real-time access to office availability.
- Applied Al-powered monitoring with OpenCV and Deepface, reaching 95%+ accuracy in presence detection.
- Developed and deployed REST APIs with Express.js, reducing update latency to under 2 seconds.
- Enhanced service transparency, eliminating manual errors and saving hours of waiting time for citizens daily.
- Delivered an end-to-end full-stack AI system, combining frontend, backend, database, and computer vision automation.

AI-Powered EUR/USD Forex Prediction Platform

Tech Stack: Next.js, FastAPI, MySQL, Machine Learning with Python

- Constructed a forex prediction app using LSTM models ($R^2 = 0.99935$) to forecast EUR/USD prices an hour ahead.
- Launched predictions via FastAPI backend and integrated with a live TradingView chart for real-time updates.
- Designed a forecast dashboard with one-click trend insights (Bull/Bear) and automated history tracking.
- Implemented user authentication and real-time market comparison, updated every minute.
- Delivered a full-stack solution merging AI, REST APIs, and an interactive UI for seamless user experience.

Technical Skills

- Programming Languages: Python, JavaScript, TypeScript
- Frontend Development: React.js, Next.js, HTML5, CSS3
- Backend Development: Node.js, Express.js, FastAPI
- APIs: RESTful APIs, Authentication, MVC Architecture
- Databases: MongoDB, MySQL, Mongoose
- Tools & Platforms: Git, Postman, VS Code, MongoDB Compass

Soft Skills

- **Problem Solving:** Able to analyze complex challenges and design efficient, practical solutions.
- Communication: Skilled in conveying technical and non-technical information clearly to diverse audiences.
- Team Collaboration: Experienced in working effectively within teams to achieve shared goals.
- Time Management: Capable of prioritizing tasks and meeting deadlines under pressure.
- Adaptability: Quickly adjusts to new technologies, environments, and changing requirements.
- Critical Thinking: Evaluates information objectively to make well-reasoned decisions.

Certifications

- Machine Learning with Python Great Learning
- Machine Learning Workshop IIT Bombay (Techfest in collaboration with AWS)
- Object-Oriented Programming in Python Infosys
- Problem Solving (Intermediate Certificate) HackerRank

Achievements

- 2nd place 2nd YSPA State Championship (Kho-Kho, Men), 2023
- Winner 3rd YSPA State Championship (Kho-Kho, Men), 2024
- Runner-up (2nd place) Anna University Zonal (Kho-Kho, Men), 2023–2024
- 3rd place Anna University Zonal (Kho-Kho, Men), 2024–2025

Education

M. Sc in Artificial Intelligence

University of Sheffield, UK

Duration: 2025 - 2026

B.Tech in Artificial Intelligence and Machine Learning

K Ramakrishnan College of Technology, Trichy

Duration: 2021 – 2025