A Y Deepesh Raj

Chennai, Tamil Nadu ● deepeshrajay@gmail.com ● +91 9884539119 ● Linkedin ● Github ● Portfolio

Professional Summary

Versatile developer with expertise in web development, Python, AI, ML, DL, and data structures. Proficient in Web Development and Python. Skilled in applying AI/ML to solve complex problems. Strong collaborator with a proven ability to deliver high-quality results in fast-paced environments.

Education

Vellore Institute of Technology, Chennai   *Sept 2022 – July 2026*
B.Tech in Computer Science and Engineering (CSE) - CGPA:8.26

Alwin Memorial Public School,Chennai   *June 2008 – June 2022*
High School Diploma - CGPA:8.54

Experience

Software Engineer Intern   *Chennai, India*
FLSmidth   *June 2024 – July 2024*

- Worked in photogrammetry, image processing, 3D reconstruction, and modeling for mining equipment defect analysis. Collaborated across teams to deliver actionable insights, demonstrating strong communication and project management skills.

Patents & Publications

- **An Intelligent IoT-Based Unauthorized Animal Detection and Classification System**   2025

Certifications & Achievements

- **AWS Certified Cloud Practitioner, Solutions Architect & Developer** – *Udemy*   2025
- **Semifinalist – Raptee CodeVolt'25 Hackathon (EVXpert AI App)**   2025
- **GPT4o: Code & Conquer**   2024

Projects

EduCurate – AI-Driven Personalized Learning System   *github.com* ↗

- Built a modular AI system that generates personalized learning roadmaps, Bloom-level assessments, and automated evaluations. Implemented agentic roadmap generation (topic decomposition, prerequisite DAGs, difficulty scoring, personalization).
- Developed dual question-generation pipelines using WhisperX+Gemini and T5 transformers with Bloom taxonomy mapping.
- Integrated a multi-agent Auto-Eval system for semantic scoring, rubric-based grading, and adaptive feedback. Tech Stack: Python, WhisperX, Gemini 2.5 Pro, T5, NLP, DAGs, Multi-Agent Systems.

Smart Safe Driving App   *github.com* ↗

- Developed a real-time AI-driven driver monitoring system to enhance road safety, using Eye Aspect Ratio (EAR) for drowsiness detection, YOLOv4 for phone usage monitoring, and FER for emotion recognition, integrated with a Flask dashboard and audio alerts. Tech Stack: Python, Flask, OpenCV, dlib, YOLOv4, FER, pyttsx3

MeetMate – AI Meeting Assistant   *github.com* ↗

- AI tool to transcribe meetings, generate MoMs, and auto-schedule follow-ups into Google Calendar. Combines diarized speech recognition with GPT-based summarization and real-time meeting analysis. Tech Stack: Azure AI Speech Services, OpenAI GPT-4o, Google Cloud APIs, Python, Streamlit, Tailwind CSS

AskLegal.ai – AI Legal Assistant   *github.com* ↗

- Legal chatbot using RAG over IPC and court cases; generates documents and predicts case judgments. Deployed via Streamlit with Gemini 2.0 Flash for NLU and Bi-GRU neural models, enhancing legal research efficiency and decision support. Tech Stack: Python, Streamlit, Redis, RAG (InLegalBERT + IPC), Bi-GRU, Gemini 2.0 Flash

Technical Skills

Programming and Web: Python, Java, C/C++, SQL, Git, HTML, CSS, Figma, Power BI, Tableau

AI/ML & GenAI: Machine Learning, Transformers, NLP, LangChain , LLM Agents, Topic Modeling, Explainable AI, Exploratory Data Analysis

Libraries & Frameworks: PyTorch, TensorFlow, Scikit-learn, OpenCV, Pandas, Numpy, Matplotlib.

Tools & Databases: AWS, Redis, Render, Azure AI, Jupyter Notebook, Git, GitHub, Figma, Vercel, Streamlit, MySQL.

Software Engineering: Data Structures Algorithms, Software Testing, Agile Methodology,CI/CD Pipeline