ADITHYAN MADHU

✉ adithyanworkmail@gmail.com — in /adithyanmadhu/ — ⚙ /scopophobic — ☎ +91 8882971781 — 🌐 /Portfolio

EXPERIENCE

SDE Intern   Noida, UP
Newgen Software   *Apr 2024 – Jul 2024*
- Collaborated with senior Java developers to enhance backend reliability by debugging 50+ production issues, using **Core Java, Servlets, HTML**
- Revamped multiple registration and feedback forms in an in-house software application, enhancing user experience through improved form validation, better error handling, and a **20% reduction in load time**.
- Optimized database queries for form submissions, resulting in a **15% improvement** in data retrieval and processing speed.

Developer Relations Intern   Remote
Geeks for Geeks   *Jun 2022 – Jun 2023*
- Collaborated with student organizations to host workshops and competitions, reaching 300+ participants.
- **Mentored 50+ students** in DSA and CS fundamentals, resulting in increased participation and improved Technical skills across university chapters.

PROJECTS

Vichaar - Chain your Thoughts | *FastAPI, Vite, GoogleAPI, Gemini 2.0, PostgreSQL*   Apr 2025 – June 2025
- Smart ideation platform that helps users to rapidly capture and refine ideas Using LLM.
- Originality Analysis via Gemini-based semantic analysis and vector similarity, enabling real-time validation with **90% precision**.
- Solved the "proof-of-idea" problem by anchoring thoughts to the blockchain — enabling founders to protect, share, and evolve ideas with confidence.

ReadingRoom | *Next.js, Django, ChromaDB, Gemini API, PostgreSQL*   Jan 2025 – May 2025
- Built a scalable social platform for 1,000+ book lovers with features like threaded discussions, reviews, and discovery using **Nextjs, Django, and PostgreSQL.**
- Engineered an AI-driven recommendation engine using ChromaDB and Gemini 2.5 flash embeddings to deliver personalized book suggestions, improving relevance and **user engagement by 35%.**
- Designed a lightweight RAG pipeline combining web-scraped book metadata and vector grounding, reducing hallucinations in chat responses by 40%.

Jal - Smart Water Usage Monitor | *OpenCV, RCNN, YOLOv5, Tensorflow*   May 2023 – Nov 2023
- Implemented a water meter digit detection pipeline using YOLOv5 to localize and extract numeric regions from analog meter images, **achieving 95%+ digit recognition accuracy.**
- **Processed 1,244+ labeled images** using OpenCV for preprocessing steps including grayscale conversion, noise reduction, edge detection, and bounding box alignment.
- Fine-tuned YOLOv5 model with custom anchor boxes, batch size, and learning rates to optimize detection accuracy for small digits.

TECHNICAL SKILLS

Languages: C++, Python, Go, TypeScript, Java
Frameworks & Databases: React, Django, FastAPI, Git, PostgreSQL, MySQL, SQLite
Libraries: NumPy, Matplotlib, Pandas, Scikit-learn, TensorFlow, PyTorch, Keras, NLTK
Relevant Coursework: Data Structures and Algorithms, Object-Oriented Programming, Natural Language Processing, Database Management Systems

EDUCATION

KCC Institute of Technology and Management   Greater Noida, UP
Bachelor of Technology in Computer Science   *Aug. 2021 – May 2025*

CERTIFICATES & ACHIEVEMENTS

Certificates: Machine Learning Specialization by Andrew Ng, Introduction to Git and GitHub (Google)
Achievements: Qualified GATE 2025. Finalist in ISRO's Ideate for Space contest.
Coding Profiles: Leetcode, Github, Codeforces, Hackerrank, Atcoder.