APOORVA PARASHAR

apoorvaparashar09@gmail.com | +91 8287884966 | LinkedIn | GitHub

Summary

Final-year Computer Science student with a strong foundation in Data Structures, Object Oriented Programming, and problem-solving. Passionate about building innovative, real-world solutions through AI and ML. Skilled in clean code, debugging, and cross-functional collaboration, with a self-driven and adaptable approach to evolving technologies.

Education

- **B-Tech in Computer Science with specialisation in Artificial Intelligence and Machine Learning** - Vellore Institute of Technology (2021-2025) - CGPA: 8.99/10

Experience

Technical Intern, R&D, Siemens Technology and Services Pvt. Ltd — Bengaluru   Sep 2023 – Jan 2024

- Automated EV depot layout digitization with OpenCV and ML, cutting manual effort from 3 hours to 8 minutes.
- Boosted feature detection accuracy by 25% using Docker-based preprocessing on Linux.
- Prepared inventor disclosure documentation for potential IP submission (under review).

Frontend Intern,Optiphoenix Xperts Pvt. Ltd. -New Delhi   Jun 2022 – Aug 2022

- Developed a cookie management extension , as a part of a CRO-focused team to facilitate smoother A/B testing.

Technical Skills

- **Programming:** Data Structures, Algorithms & Object-Oriented Design, System Design | Java, Python
- **Backend:** Node.js, REST APIs, Python Flask, Spring Boot familiarity, | Microservices Understanding | Tomcat
- **Database Management:** RDBMS (PostgreSQL, MySQL) | NoSQL (MongoDB, Cassandra)
- **Software Development Practices:** SDLC, Agile Methodology | Clean Code, Debugging & Testing
- **DevOps & Cloud:** AWS, Azure | CI/CD Pipelines | Git, GitHub Actions
- **AI & ML:** Machine Learning, Deep Learning | NLP, Computer Vision, Generative AI | TensorFlow, PyTorch

Projects

Full-Stack Financial Lending ERP – Currently in Production on AWS   Nov 2023 – Apr 2024

- Designed and developed a scalable ERP system using the PERN stack (PostgreSQL, Express.js, React.js, Node.js).
- Integrated Role-Based Access Control (RBAC) to ensure secure multi-user access.
- Developed financial dashboards with real-time visualizations to support client decision-making.
- Conducted on-site requirement analysis, leading to notable improvements in client workflow and productivity.

Capstone: Multimodal AI Pipeline for Smart Autism Support   May 2024 – Nov 2024

- Developed a real-time pipeline combining facial and speech emotion recognition for affect-aware communication.
- Fine-tuned an LLM with structured, emotion-rich prompts for adaptive neurodivergent interaction.
- Designed logic to condition prompts with emotional context for context-aware LLM behavior.
- Co-authored research paper on multimodal LLM adaptation for autism support.

Senior Design Project: ByteFence – AI-Powered Malware Detection System   Jan 2025 – May 2025

- ML-based malware detection pipeline; extending to behavior-based analysis using sandbox logging and GNNs.
- Proposed a novel GNN Architecture which captures actual malware behavior and classifies file as malicious or benign.

Building a Question Answering Microservice with RAG   Apr 2025 – Present

- Developing a microservice for answering document-grounded queries using Retrieval-Augmented Generation (RAG).
- Designing backend components for efficient retrieval, semantic search, and real-time response generation.

Certifications & Co-curricular

- **Ongoing Hugging Face's AI Agents**
- **NVIDIA Certified:** Fundamentals of Deep Learning
- **Microsoft Certified:** Azure Fundamentals
- **NPTEL Certified:** Responsible and Safe AI Systems
- Executive Board Member, Open Source Community: Organized MLH Hackathons, TechCast Sessions etc.
- Former Vice President of MUN Club
- Curator & Emcee, TEDxVITAP 2023