Shaun Mendes

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Education

Fr. Conceicao Rodrigues College of Engineering, Mumbai — Bachelor of Engineering in Computer Engineering, CGPA: 7.87/10 — Graduating June 2026

Technical Skills

Programming Languages: Python, Java, TypeScript, SQL, React.js, Next.js
Backend & Cloud: FastAPI, Spring Boot, gRPC/Protobuf, REST APIs, AWS, Docker, Jenkins, Git, CI/CD
AI/ML & Agents: LLM Fine-Tuning (LoRA, DPO, ORPO), MCP, A2A, CrewAI, LangGraph, LangChain, RAG, Transformers, PyTorch
Data & Storage: PostgreSQL, MongoDB, ChromaDB, Redis, MinIO

Work Experience

AI Development Intern, Siemens Digital Industries Software — Chennai — Feb 2026 – July 2026

- Developed an AI-powered copilot replacing menu-driven workflows with a conversational interface for complex version-control operations; built an MCP server over a Spring Boot/gRPC backend that auto-generated LLM-discoverable tools from OpenAPI specs, exposing capabilities to both the application UI and external AI-enabled IDEs
- Engineered hybrid intent routing and semantic tool filtering (384-dim sentence-transformer) to reduce 100+ candidate tools to 3–8 per request, cutting LLM API costs ∼75% while minimizing inference load
- Architected an automated defect investigation pipeline across 8 interdependent repositories; fetched Jira issues, resolved ambiguous component mappings, and orchestrated AI-assisted root cause analysis using GitHub Copilot and Siemens-hosted LLMs
- Generated structured triage reports (suspect commits, impacted files, fix recommendations, test strategies) and auto-published them back to Jira, giving developers a pre-investigated starting point that significantly reduced initial manual investigation time
- Designed a 3-stage GitLab CI/CD pipeline (lint → test → build) automating 1,000+ test executions and packaged deployment

Research Intern, Fr. CRCE (Prof. Joshua Michel & Dr. Sujata Deshmukh) — Bandra, Mumbai — Jun 2025 – Aug 2025

- Led evaluation of S/LLM fine-tuning strategies (LoRA, DPO, ORPO) across GPT-2, Gemma3 (4B), Llama 3.1 (8B).
- Improved model accuracy to 78.6% using Llama 3.1 + DPO, beating baseline by 22%

Technical Lead Intern, Modern Hub Solutions — Remote — Dec 2024 – May 2025

- Guided a 14-person team to ship a clinical platform with a RAG-based diagnostic chatbot, deploying containerized microservices for real-time physician queries; **Recognized with Best Rising Leader and Best Rising Star awards.**

Data Engineer Intern, Jio Platforms Limited — Navi Mumbai — Jun 2024 – Jul 2024

- Worked on device analytics project using Apache Spark (Scala), Hive, and MapReduce

Projects

- **VoiceFlow AI — Multi-Tenant SaaS Voice Agent Platform**: Built multi-tenant voice AI SaaS with per-tenant RAG (ChromaDB + BM25), real-time streaming pipelines (Twilio/WebSocket) **Stack:** FastAPI, LangGraph, Redis, PostgreSQL, MinIO, Docker Compose
- **CREDA — AI-Powered Financial Coach for India (Economic Times Hackathon Winner; Media.net AIVolution Finalist)**: Built voice-first financial advisor with 22 LangGraph agents; cut LLM API costs 50% via 4-tier intent classifier (regex → embeddings → LLM fallback). **Winner — Economic Times Hackathon; Finalist — Media.net AIVolution.**

Positions of Responsibility

Google Developer Student Clubs (GDSC) — Joint Lead — Bandra, Mumbai

- Managed a 50-member team and organized an international hackathon with participation from 20+ countries.
- Conducted 10+ workshops on Web, Google Cloud, and AI, training 100+ students.

Research & Patents

- Published "Real-time Adaptive Graph-Temporal Fraud Detection (RAGTFD) for UPI Transactions" in IET Conference Proceedings International Conference (ICATES 2025); indexed in IEEE Xplore. (DOI: 10.1049/icp.2025.4777) [Link]
- Published "TechLib: Plagiarism-Free Project Management" in a Scopus-indexed journal (GIJET, Vol. 11, Issue 1, 2025), proposing a plagiarism detection platform using cosine similarity for academic project verification. [Paper]

Achievements

- 8x National Hackathon Winner (MIT Chennai, VijayBhoomi University, Lyzr.ai, SunHacks, Brained, StarkNet, SuperHacks by AWS, Economic Times).
- Ranked Top 90 globally among 10,000+ participants – Google AI for Impact (Asia-Pacific).