

DINESH R

Software Development Engineer | AI & Backend

r.dineshdinz12@gmail.com | [linkedin.com/in/dinesh-r12](https://www.linkedin.com/in/dinesh-r12) | github.com/dineshdinz12 | dinesh-r.me | +91 6374395430 | Tamil Nadu, India

EXPERIENCE

Software Development Engineer Intern

Dec 2025 – Present

[TripFactory.com](https://www.tripfactory.com)

Bengaluru, India

- Developing and maintaining **Core Java backend services** supporting high-volume internal workflows, ensuring system reliability and performance at scale
- Delivered an **AI-powered backend automation solution** that eliminated **90% of manual operational effort**, directly improving team productivity and deployment speed

Software Development Engineer Intern

Jun 2025 – Nov 2025

Thoothukudi Police – Cybercrime Branch

Thoothukudi, India

- Architected a **predictive AI system** using real-time data pipelines to forecast crowd density across **5+ zones**, enabling proactive law enforcement deployment
- Engineered a **smart parking allocation system** with dynamic slot management, reducing manual coordination overhead by **45%**

Software Development Engineer Intern

Sep 2024 – Apr 2025

Crayon'D

Chennai, India

- Developed **LLM-powered testing modules** integrated into CI/CD pipelines, accelerating QA throughput by **22%** and reducing human-in-the-loop review cycles
- Built a **semantic scenario retrieval engine** with vector indexing over **200+ test cases**, reducing edge-case bugs in production by **15%**

PROJECTS

[GlobalXport](#) – AI-Powered International Trade Automation Platform

- Automated end-to-end generation of **5+ export documents**, compressing processing time from **7 days to 4 hours** using multi-agent LLM pipelines
- Designed **modular microservices architecture** with independent document agents; integrated **multi-LLM orchestration** (Gemini, ChatGPT, Claude) with Pinecone vector search for compliance validation, improving efficiency by **35%**
- **Tech Stack:** Next.js, PyTorch, Python, FastAPI, MongoDB, Pinecone, GCP, LangChain, Multi-LLM

[AlloyMind AI](#) – Intelligent Metallurgical Optimization Platform

- Built **ensemble ML system** (LightGBM + CatBoost) achieving **92.5% prediction accuracy** for alloy composition optimization across EN1563, ASTM A536, and ASTM A395 industrial grades
- Engineered **FastAPI + Next.js** full-stack platform with real-time analytics, cost-impact analysis, and RBAC; implemented priority-ranked recommendation engine with **sub-100ms** response time
- **Tech Stack:** Next.js, TypeScript, FastAPI, Python, MongoDB, LightGBM, CatBoost, Scikit-learn

EDUCATION

Bannari Amman Institute of Technology

Sep 2023 – May 2027

B.Tech Information Technology | CGPA: 8.8 / 10.0

Tamil Nadu, India

- **Coursework:** Data Structures & Algorithms, OOP, DBMS, Operating Systems, Computer Networks, Generative AI

TECHNICAL SKILLS

Languages: Java, C/C++, Python, SQL

Backend & AI: FastAPI, Flask, LangChain, PyTorch, RAG, LLM Orchestration, FAISS, Pinecone

Frontend: React.js, Next.js, Tailwind CSS

Cloud & DB: AWS, MySQL, PostgreSQL, MongoDB, Redis

DevOps: Git, Docker, Linux, Postman, CI/CD, Unit Testing, Microservices, REST APIs

ACHIEVEMENTS & RECOGNITION

- **Zafin Aspire & Achieve Global Merit Scholarship (2025–26)** – **Top 4 engineering student globally** from 5,000+ applicants; awarded **\$5,000 USD** + global industry internship
- **2nd Runner-Up, ABB EngineeredX 2025** – Best **AI agentic automation** for manufacturing among **500+ teams** across South India
- **2nd Runner-Up, Blueprint @ IIT Delhi 2025** – Only student prototype in Top 3 among **100+ startups**
- **Top 50 Campus Startups** – Google for Startups × Campus Fund 2025; awarded **\$250,000 Cloud Credits**
- **Leadership:** AI Innovation Cell (Tech Executive Lead) | Rotaract Club (Innovation Lead) | Speaker

CERTIFICATIONS

Google AI Essentials: AI/ML workflows, prompt engineering, responsible AI – [Google](#)

Google Prompting Essentials: Advanced prompt design, chain-of-thought, LLM optimization – [Google](#)

GitHub Foundations: Version control, CI/CD, collaborative workflows – [GitHub](#)