

Elakiya VL

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Summary

Pre-final year B.Tech IT student and software engineer with hands on experience building backend APIs, full stack applications, and Python based AI/ML systems, including RAG pipelines and LLM integration. Practical exposure to cloud infrastructure on AWS and containerised deployments with Docker and CI/CD. Currently preparing for the AWS Certified Solutions Architect – Associate (SAA-C03) exam to deepen cloud fundamentals.

Technical Skills

- **Languages:** Python, Java, C/C++
- **Backend & APIs:** FastAPI, SQL, MongoDB
- **AI/ML & GenAI:** Hugging Face Transformers, FAISS, RAG Pipelines, LLM Integration
- **Cloud & DevOps:** AWS, Docker, GitHub Actions, CI/CD
- **Tools:** Git, Linux/Bash

Experience

Full Stack Developer

Nov 2025 – Feb 2026

Indominus Labs, Chennai, India

- Designed and developed responsive UI pages and frontend components, focusing on usability and consistent user experience.
- Built and integrated backend RESTful APIs with multi-tier architecture, applying query optimization and connection pooling to improve response efficiency.

Projects

NeuroScan.ai – Brain Tumor MRI Classification

PyTorch, Streamlit, Docker, Grad-CAM

<https://github.com/Elakiya2904/NeuroScan.ai>

- Built a soft-voting ensemble of ResNet18, DenseNet121, and MobileNetV2 using transfer learning, achieving 80.31% test accuracy on 5,600 MRI images across 4 tumor classes.
- Deployed a real-time diagnostic Streamlit app with Grad-CAM explainability for model interpretability.

Distributed Job Queue & Background Task Processing

FastAPI, AWS SQS, Docker

<https://github.com/Elakiya2904/job-queue-system>

- Built a distributed job queue using FastAPI and AWS SQS with a decoupled producer-consumer architecture for reliable asynchronous message delivery.
- Managed task lifecycle with SQS visibility timeouts and dead-letter queues for retries and at-least-once processing, containerised with Docker Compose.

Education

Dr. N.G.P. Institute of Technology

Coimbatore, India

B.Tech, Information Technology

CGPA: 8.02/10

Expected May 2028

Certifications

- Data Analytics Masters 2026: From Basics to Advanced – Udemy
- AWS Cloud Technology Consultant Professional Certificate – Coursera

Achievements & Events

- **Jury Choice Award** – Innovism Version 6.0, PCI: Presented FINNOVA (Autonomous Financial Intelligence System).
- **MSME 5.0 Hackathon** – Finalist; presented Smart Chain, an AI-driven supply chain optimisation solution.

Publications

Smart Shopping Cart using RFID Technology for Automated Billing and Enhanced Retail

Experience

ICECA 2025, Nov 2025

Volunteering

- **Fellow & Academic Support Volunteer, Make A Difference (MAD)** – Ran fundraising and cultural events for children and tutored 4 tenth grade students weekly in Mathematics.
- **Department Executive Secretary, Dr. N.G.P. Institute of Technology** – Planned symposiums and workshops for the IT Department.