# Paul Pandiyan K

*Software Engineer*

📞 +91 97864 16650
paulpandiyankannan@gmail.com
Portfolio – LinkedIn – GitHub – LeetCode

## Profile

Backend / Full-Stack Software Engineer with experience building production-grade APIs, cloud-native systems, and automated CI/CD pipelines. Focused on scalable backend development, infrastructure automation on AWS, and reliable engineering practices, with exposure to applied AI features delivering measurable business value.

## Education

**Government College of Engineering, Erode**                          Nov 2020 – Jun 2024
B.E. in Computer Science and Engineering                                    **CGPA: 8.3**

## Experience

**Software Engineer**                                          January 2024 – Present
Lightcast, Dharmapuri

- Designed and implemented RESTful backend services using Python, reducing data processing time by 35%.
- Developed full-stack web features using React.js (frontend) and Python APIs (backend) for production-grade internal tools.
- Introduced Dockerized builds with environment-specific configurations (dev/staging/prod) to ensure consistent and reproducible deployments.
- Architected and optimized GitLab CI/CD pipelines with parallel job execution, reducing build and release cycles by 30%.
- Automated AWS infrastructure provisioning using Terraform, cutting deployment and setup time by 40%.
- Integrated OpenAI APIs for internal document analysis workflows, reducing manual validation effort by 50%.

## Skills

**Frontend:** React.js, Tailwind, TypeScript, Jest, Cypress
**Backend / Tools:** REST APIs, OpenAI APIs, ChromaDB, Hugging Face, Postman
**Programming:** Python, Java, SQL
**Platforms:** Linux, GitLab, Agile/Scrum
**DevOps / Cloud:** AWS, Docker, Terraform, GitLab CI/CD
**Core CS:** Data Structures, Algorithms, System Design, Problem Solving, OOP

## Projects

**RetailIQ – Employee Attrition Prediction System (Hackathon Winner)** — Python, XGBoost, AWS

- Built an employee attrition prediction system using an XGBoost-based machine learning model.
- Developed a full-stack web application with dashboards for attrition trends and workforce analytics.
- Awarded Winner in the internal company hackathon for business impact and technical execution.

**RAGnarok Chatbot** — Python, Streamlit, Hugging Face, ChromaDB

- AI chatbot to answer internal queries using Retrieval-Augmented Generation (RAG).
- Built vector search pipelines with ChromaDB and integrated Mistral-7B LLM for response generation.
- Reduced repetitive internal queries by 60% by surfacing contextual document-backed answers.
- Deployed Streamlit UI with query history for improved accessibility across teams.

**Cloud-native Deployment System** — Docker, Kubernetes, Terraform, AWS

- CI/CD pipeline setup and infrastructure provisioning.
- Automated infrastructure creation using Terraform scripts on AWS.
- Deployed Dockerized applications to Kubernetes (Minikube), simulating scalable environments.
- Enabled zero-touch deployments via GitLab CI/CD.

**Crypto Price Tracker** — React.js, CoinGecko API

- Frontend application to track real-time cryptocurrency prices.
- Built interactive UI for live price monitoring using React.js.
- Integrated external API to show price trends and improve user decision-making.

## Certifications

- Cloud Computing on AWS — Udemy
- Docker for Beginners — Udemy
- Kubernetes Fundamentals — Udemy