Paul Pandiyan K

Software Engineer

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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   Nov 2020 – Present
Lightcast, Dharmapuri

- Designed and implemented RESTful backend services using Python, reducing data processing time by **35%**.
- Automated AWS infrastructure provisioning using Terraform, cutting deployment and setup time by **40%**.
- Built and maintained GitLab CI/CD pipelines for build, test, and deployment automation, reducing release cycles by **30%**.
- Integrated OpenAI APIs for internal document analysis workflows, reducing manual validation effort by **50%**.
- Deployed containerized services using Docker and Kubernetes (Minikube) to support scalable testing environments.

Skills

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

Projects

RetainIQ – 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, HugginFace, ChromaDB
AI chatbot to answer internal queries using Retrieval-Augmented Generation (RAG).
- Built a vector-search pipeline with ChromaDB and integrated Mistral-7B LLM for response generation.
- Reduced repetitive internal queries by 60% by surfacing contextual document-backed answers.
- Deployed Streamlit-based UI with query history, improving 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 apps 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 an 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