

ABOUT ME

Software Engineer specializing in **Artificial Intelligence, Machine Learning, Generative AI, and Full-Stack Development**, with hands-on experience building **AI-powered applications** using Python, Flask, React, LLMs, RAG, ChromaDB, OpenAI APIs, and Hugging Face. Experienced in developing scalable REST APIs, semantic Search systems, and production-ready AI applications, with a strong foundation in Data Structures, Algorithms, OOP, DBMS, and modern software engineering

TECHNICAL STACKS

- **Programming Languages:** Python, C++, JavaScript, TypeScript, SQL
- **Generative AI:** LLMs, RAG, Prompt Engineering, OpenAI API, Hugging Face, Chroma DB, Vector Embeddings
- **Machine Learning:** Scikit-learn, Pandas, NumPy, Feature Engineering, Random Forest, Logistic Regression, Linear Regression
- **Backend Development:** Flask, FastAPI, Node.js, REST APIs, JWT Authentication
- **Frontend Development:** React, HTML, CSS, Vite
- **Databases:** MySQL, SQLite, Chroma DB
- **Cloud & DevOps:** AWS EC2, Oracle Cloud Infrastructure
- **Core CS:** DSA, OOP, DBMS, Operating Systems
- **Developer Tools:** Git, GitHub, Linux, Jupyter Notebook

EXPERIENCE

AI & Python Development Trainee

Creator Space

Jan –Jul 2026

- Engineered **5+ AI-powered** web applications using Python, Flask, LLMs, RAG, ChromaDB, and vector embeddings across multiple real-world use cases
- Designed and implemented **RAG-based semantic search pipelines** over 400+ indexed documents, improving retrieval through optimized chunking and embeddings
- Reduced **AI response latency** by implementing asynchronous processing, intelligent caching, and optimized retrieval workflows
- Developed and deployed **6 REST APIs** integrating OpenAI and Hugging Face models, supporting 1,000+ AI inference requests
- Collaborated in Agile development using Git, contributing **70+ commits and 25+ pull requests** across AI applications

Full-Stack Development Intern

National Small Industries Corporation (Govt. Of India)

Jan – Feb 2025

- Developed **5+ responsive web modules** using HTML, CSS, JavaScript, Flask, and SQL for scalable applications
- Built and integrated **10+ RESTful API endpoints**, enabling seamless frontend-backend communication
- Improved **application performance** through debugging, code optimization, frontend enhancements, testing, and deployment support

Data Visualization Intern

Rochester Institute Of Technology

Jul 2025

- Processed and transformed **500+ records** using Python, Pandas, and NumPy for visualization and reporting
- Automated **data preprocessing workflows**, reducing manual data preparation effort
- Developed **backend data processing scripts** supporting interactive dashboards and business intelligence reports

FEATURED PROJECTS

AI Career Guidance Platform <https://careerguide-gxiz.onrender.com>

Python - Flask - React - RAG - ChromaDB - OpenAI

- Developed an **AI-powered career guidance platform** integrating Retrieval-Augmented Generation (RAG) and semantic search over 500+ knowledge documents
- Improved recommendation quality through optimized document chunking, vector embeddings, and retrieval strategies using ChromaDB
- Reduced **AI response** time by implementing intelligent caching and asynchronous request execution

Camp Line <https://digitized-medical-campaign.onrender.com>

React - Vite - Supabase - PostgreSQL - Twilio

- Developed a **full-stack medical camp management platform** supporting **50+ patient records** with AI-assisted triage, digital prescriptions, and inventory management.
- Built backend services using Supabase, PostgreSQL, Edge Functions, and Twilio for real-time updates, SMS notifications, and secure patient workflows
- **Reduced manual processing** effectively through automated registration, voice symptom capture, prescription management, and inventory tracking

Intelligent Book Recommendation System <https://bookrecommendationagent.onrender.com>

Python - LLMs - RAG - ChromaDB

- Built an **AI-powered book recommendation system** using Large Language Models, Retrieval-Augmented Generation (RAG) and ChromaDB
- Indexed and retrieved information from **200+ book records** using semantic embeddings for context-aware recommendations
- Designed modular **AI agents** capable of generating context-aware recommendations through intelligent retrieval pipelines

AI Crime Analyzer Dashboard <https://ai-crime-analyzer-dashboard.onrender.com>

Flask - Machine learning - Agentic AI -RAG

- Developed an **AI-powered crime analytics platform** integrating Machine Learning, Retrieval-Augmented Generation (RAG), and multi-agent AI
- Processed and analyzed crime datasets to generate predictive insights and interactive analytical dashboards
- Optimized retrieval pipelines to improve analytical response time and application performance

EDUCATION

Anna University

B.E. Computer Science Engineering

2023-2027

CGPA - **9.1 / 10**

Bethel Matric Hr. Sec. School

Higher Secondary

2023

Percentage **85%**

CERTIFICATIONS

- Oracle Cloud Infrastructure -- Certified Associate
- NPTEL (IIT Madras) -- Computing in Python, Silver Medal
- Google Coursera -- Crash Course in Python, Deep Learning & Neural Networks
- Aptis English Fluency Test -- CEFR Grade I

LEADERSHIP & ACHIEVEMENTS

- Office Bearer, Computer Society of India (CSI); led 10+ technical events for 100+ participants
- Best Student Award recipient, English Fluency Program, for communication and presentation excellence
- IEEE Student Member; attended technical conferences and actively utilized research publications for learning

LANGUAGES

English (Fluent) – Tamil (Native) – Arabic (Pursuing) – Japanese (Beginner)