

KARANAM VENUGOPAL

📍 Guntakal | ✉ venukaranam64942@gmail.com | 📞 +91-8142731470 | 🌐 github.com/Venukaranam98

PROFESSIONAL SUMMARY

Backend-focused Full Stack Developer with hands-on experience in Python, FastAPI, PostgreSQL, React.js, and AI Engineering. Skilled in building scalable REST APIs, Retrieval-Augmented Generation (RAG) applications, LangChain pipelines, vector databases, semantic search systems, and LLM-powered applications using Groq API and ChromaDB.

SKILLS

Programming Languages: Python, JavaScript

Frontend Development: React.js, HTML, CSS

Backend Development: FastAPI, REST APIs, JWT Authentication, Redis, Celery

AI & LLM: LangChain, Prompt Engineering, Retrieval-Augmented Generation (RAG), Vector Databases, ChromaDB, Embeddings, Semantic Search, Groq API

Database: PostgreSQL, SQL, SQLAlchemy (ORM)

Common Tools: Git, GitHub, Postman, Docker (Basics), Uvicorn, Cloudinary

EDUCATION

Siddhartha Institute of Science and Technology

2023-2027 (Pursuing)

Bachelor of Technology (B.Tech) | CGPA: 8.14

PROJECTS

E-Kart - Full Stack E-Commerce Backend System

[Demo](#) | [GitHub](#)

- Developed a backend-driven e-commerce application with product management and API integration.
- Built REST APIs using FastAPI for handling products, users, and order-related operations.
- Implemented CRUD functionalities and integrated PostgreSQL database for data storage.
- Designed responsive frontend interfaces using React.js.
- Added Cloudinary-based image management and deployed.

Technologies Used: Python, FastAPI, React.js, PostgreSQL, SQLAlchemy, Redis, Celery, Cloudinary

DevForge – Full Stack Project Generator

[Demo](#) | [GitHub](#)

- Developed a full-stack project generation platform that automates the creation of starter applications based on user-selected technology stacks.
- Built dynamic template generation for FastAPI, Node.js, and React projects with automated README, environment, and Docker configuration setup.
- Implemented ZIP packaging, and a responsive React-based user interface for streamlined developer onboarding.
- Automated project setup by generating scalable folder structures, starter code, configuration files, and deployment assets through a template-based architecture.

Technologies Used: Python, JavaScript, FastAPI, React.js, Tailwind CSS, Axios, Docker, Git, GitHub

AI-Powered RAG Chatbot

[Demo](#) | [GitHub](#)

- Built an end-to-end Retrieval-Augmented Generation (RAG) chatbot using LangChain and Groq LLM.
- Implemented document loading, text chunking, embeddings, semantic search, and ChromaDB vector storage.
- Developed a retrieval pipeline using LangChain Retrievers and Prompt Templates to answer questions from custom documents.
- Built an interactive chatbot capable of answering user queries using retrieved context instead of relying solely on model knowledge.

Technologies Used: Python, LangChain, ChromaDB, Hugging Face Embeddings, Groq API, RAG, Vector Databases

CERTIFICATIONS

- Python-Infosys springboard (Infosys-2024)
- Advanced Course on Full Stack Development (Orion Grid, 2025)
- Problem Solving(Basic) - HackerRank (2026)

LANGUAGES KNOWN

English, Telugu, Kannada, Hindi