# Dhaniyala Venkata Sathvik

#### INTERN

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Enthusiastic and detail oriented Computer Science student with a strong foundation in programming and data structures. Proficient in languages such as Java, Python, C and Kotlin. Quick learner with a passion for solving realworld problems through technology. Seeking an entry-level software development or internship opportunity to contribute technical skills and grow as a developer.

#### **SKILLS AND COMPETENCIES**

- Languages : C , Python , Java , Kotlin
- Devops : Git , GitHub , Jenkins , Docker
- Data Structures

- Machine Learning with Sklearn and Tensorflow
- Android Development in Kotlin
- Grasp on Flutter

# **PROJECTS**

#### **SMART PARKING LOT MANAGEMENT SYSTEM**

June 2025 - Present

- Built a full-stack web application using Flask and Jinja2 to manage and visualize parking lot availability in real time.
- Designed interactive HTML templates with Bootstrap for admin and user interfaces, enabling intuitive navigation and responsive design.
- Implemented parking slot tracking and management using a lightweight SQLite database.
- Created modular routes and templates for admin functionalities such as lot creation, slot allocation, and status monitoring.
- Optimized backend logic to handle form submissions and slot operations dynamically, ensuring seamless user interactions without JavaScript.
- Maintained modular code structure following MVC principles; source code kept private under IIT Madras academic policy.

### RECIPE HUB WITH REAL-TIME CHATBOT

February 2025 - Present

- Developed a real-time chatbot using Retrieval Augmented Generation (RAG) that dynamically answers user queries based on available ingredients and cooking preferences.
- Enabled users to input available ingredients and receive personalized recipe suggestions via a conversational interface powered by RAG.
- Optimized the chatbot for real-time interaction, handling natural language queries and edge cases using OpenAI embeddings and prompt templates.
- Implemented chat history saving, allowing users to review previous ingredient-based queries and responses

#### **RAG-CHAT-BOT USING LANGCHAIN**

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- Implemented a document-based RAG chatbot using LangChain, FAISS, and OpenAI embeddings to enable context-aware question answering over user-uploaded PDFs.
- Designed a backend pipeline in Flask to handle document upload, chunking with RecursiveCharacterTextSplitter, and vector store creation using FAISS.
- Used LangChain's PromptTemplate and LLMChain modules to structure LLM prompts and streamline interaction with OpenAI's language models.
- Processed PDF inputs via PyMuPDFLoader and built a semantic search layer for real-time answer retrieval based on user queries.
- Integrated up-to-date LangChain community modules and managed vector persistence (faiss\_index) for efficient document retrieval across sessions.
- https://github.com/dvsathvik/RAG-Chat-Bot

#### **EDUCATION**

#### **BS ONLINE DEGREE(CGPA 8.46)**

**IIT Madras** 

## **COMPUTER SCIENCE & ENGINEERING IN B.TECH (CGPA 8.6) CANDIDATE**

Expected graduation Sep 2027

JNTU, Hyderabad

MPC IN TSBIE (97.4%)

Jun 2022

Sri Chaitanya Junior College, Narayanaguda, Hyderabad

## SSC (SECONDARY EDUCTION) (GPA 10)

Dec 2020

St. Little Theresa's High School

#### **CERTIFICATIONS**

 Foundation Level Completed – IITM BS in Data Science & Programming Indian Institute of Technology Madras (Online), 2024https://github.com/24f1001404/certificates/blob/main/IITM%20foundation%20certificate.pdf