Hem J V K

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PROFILE

Deep Learning and GenAI enthusiast with strong experience in programming and problem-solving. As a prefinal-year engineering student, I am passionate about learning new technologies and excited to contribute to the company.

EDUCATION

B.Tech - CSE with a specialization in AI and ML

2022 - 2026

SRM Institute of Science and Technology - Vadapalani, Campus **CGPA:** 9.76

Higher Secondary Education

Sri Krish International School - Chennai Percentage: 87.2

Secondary Education

The CP Ramaswamy Aiyar Foundation- Chennai Percentage: 79.6

SKILLS

Technical Skills

- Programming Languages: Python, Java, C/C++
- Databases: MySQL, PostgreSQL
- Low-code Technology: Appsheet
- Cloud Services: AWS
- Tools: LLMs, Streamlit

Computer Science Concepts:

- LLMs, Deep Learning, Machine Learning
- Database Management, SDLC
- DAA, DSA, OOPS
- Networking

Non-Technical Skills

- Problem-solving
- Collaboration

PROJECTS

Insight Engine: Data Dashboard Automation

03/2025 - present

- Spearheaded the development of an AI-driven platform that automates the end-to-end data science lifecycle, encompassing exploratory data analysis, automated visualization, advanced insight generation, and predictive forecasting.
- Engineered intelligent agents, leveraging Large Language Models (LLMs), with integrated machine learning capabilities and robust data pipelines to deliver precise, data-driven predictions and strategic foresight.
- Designed and deployed an intuitive chatbot interface, democratizing data analysis by empowering users to conversationally query complex datasets and extract ad-hoc insights on demand.

PolyLLaMA &

01/2025 - 02/2025

- Built a Streamlit-based application integrating LLaMA 3.1:8B, enabling intelligent and context-aware interactions.
- Implemented multilingual support, allowing users to choose their preferred language for seamless communication.

 Added text-to-voice and voice-to-voice functionalities, enhancing accessibility and user engagement through AI-driven content generation.

Environmental Impact of Cropland: A Study on Greenhouse Gas Emissions &

08/2024

- Conducted Exploratory Data Analysis (EDA) to assess CO2 emission patterns, identifying key trends and anomalies.
- Applied the N-BEATS deep learning model for time-series forecasting, achieving 80% accuracy in predicting CO2 emissions.
- Created a choropleth map to visualize country-wise CO2 emissions from cropland, enabling comparative geographic analysis.

Doodle Craft ∅ 04/2024

- Developed a Java-based desktop drawing application with a Swing GUI, allowing users to create and edit drawings using various tools.
- Integrated MongoDB and local file system storage for data persistence, enabling users to save, load, and manage drawings efficiently.

AWARDS AND ACHIEVEMENTS

Smart India Hackathon 2024 - Winner - 500 teams participated all over india

12/2024

- Modeled a predictive model using DARTS' N-HiTS architecture to forecast daily prices of 22 essential agri-horticultural commodities, optimizing market insights.
- rices of chennai, India
- Built an interactive Streamlit application to visualize historical trends, seasonality patterns, and future price predictions to enhance decision-making for stakeholders.
- Achieved a remarkable 99.4% accuracy, with price deviation limited to +/- Rs.100 to +/- Rs.200, ensuring high reliability for agricultural price forecasting.

Overall Proficiency Award

03/2023

Overall Proficiency Rank I in the 1st Semester at SRM vadapalani

National Science Day - Winner - Science Expo organised by College

02/2023

- Designed and built a compact, cost-effective CPU using a Raspberry Pi, tailored to meet the needs of programmers and developers.
- Configured a lightweight Linux-based environment with essential coding tools, including VS Code, Git, Python, and terminal utilities, ensuring a smooth development experience.
- Optimized system performance by integrating efficient cooling, power management, and customizable keyboard/mouse support, making it a portable and versatile coding workstation.

POSITION OF RESPONSIBILITIES

Student Mentor and Technical Team (ArrowDev Club)

07/2024 - present

Real-World Frontend Experience Empower college juniors with hands-on frontend development using HTML and CSS. This value-added course, seamlessly integrated into the curriculum, provides real-time applications, practical insights, and a strong foundation for a future in web development. And conducted an event on using Agentic AI for building Applications.

Environmentalist Foundation of India (EFI) - Role: Volunteer

06/2024 - 07/2024

- Actively participated in environmental conservation efforts, cleaning beaches and lakes to reduce pollution and promote ecological sustainability.
- Developed a no-code application to track volunteer attendance, ensuring efficient management and recordkeeping for conservation initiatives.
- Raised awareness about pollution through community engagement, encouraging responsible waste disposal and fostering a culture of environmental stewardship.

Chennai, India