

Sathvik Vadavatha

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EDUCATION

Northeastern University
MS Computer Information Systems

Boston, MA
Jan 2024 – Present

University of Illinois Urbana-Champaign
BS Mechanical Engineering

Champaign, IL
Aug 2018 – May 2022

SKILLS

Programming: Python, Java, R

Data Analysis & Machine Learning Tools: Pandas, NumPy, TensorFlow, Keras, Seaborn, Tableau, Excel, Power BI

Web & Cloud Tools: Streamlit, React, Vue.js, HTML, CSS, AWS, GCP, Azure, Docker, Airflow, Git

Databases & Big Data Tools: SQL, PostgreSQL, Snowflake, MongoDB, Hadoop

Other: PTC Windchill, LangChain, LangGraph, Jira, Probability, Statistics, Time Series Forecasting

WORK EXPERIENCE

ITC Infotech USA
Product Lifecycle Management Intern

Frederick, MD
Sept 2022 – Oct 2023

- Developed and executed test cases for PTC Windchill, validating data workflows and system functionality to ensure seamless integration of engineering data
- Managed and structured 3D model data, ensuring version control, revision tracking, and change management for streamlined collaboration
- Configured Windchill for data and document management based on business needs, setting up custom attributes, naming conventions, and change workflows to optimize efficiency

ITC Ltd (Paperboards and Specialty Papers Division)
Engineering Intern

Hyderabad, India
Jun 2021 – Aug 2021

- Conducted process analysis using lean methodologies and statistical tools (Pareto charts, regression analysis) to identify inefficiencies and reduce waste
- Built a Tableau dashboard to track machine downtime and production rates, enabling real-time insights and process adjustments that reduced downtime by 12% through proactive maintenance
- Calibrated IoT proximity sensors on forklifts, improving safety by enhancing real-time detection and feedback systems

PROJECTS

NutriGuard AI

Mar 2025 – Apr 2025

- Developed a full-stack AI-powered nutrition assistant that integrates OCR-based label extraction, meal journaling, ingredient analysis, and contextual Q&A
- Built automated pipelines to extract, clean, and ingest food label data (Azure OCR) and public datasets (USDA, FDA, NIH), storing embeddings in Pinecone for vector search
- Created a secure app (Next.js + FastAPI) with JWT-authentication logging and Dockerized deployment on AWS EC2

AI-Powered Multimodal Travel Guide with Agentic Architecture

Oct 2024 – Dec 2024

- Created an AI-powered travel guide to provide flight prices, reviews, weather updates, and nearby attractions based on user-provided text or images
- Designed an agentic architecture using LangChain to enable intelligent querying, including image-to-text landmark recognition and budget forecasting
- Implemented dynamic conversation handling with intent recognition and contextual memory

PDF Extraction and Query System with RAG Architecture

Aug 2024 – Sept 2024

- Engineered an automated PDF extraction pipeline on Streamlit using Adobe API, and Airflow, with extracted data queried with OpenAI API
- Implemented a Retrieval-Augmented Generation (RAG) architecture to enable document querying and summarization with vector databases
- Deployed the fully containerized system using Docker on AWS EC2 for scalable and secure document processing