Sathvik Vadavatha

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EDUCATION

Northeastern University <div style="float:right">Boston, MA</div>
MS Computer Information Systems <div style="float:right">Jan 2024 – Present</div>

University of Illinois Urbana-Champaign <div style="float:right">Champaign, IL</div>
BS Mechanical Engineering <div style="float:right">Aug 2018 – May 2022</div>

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 <div style="float:right">Frederick, MD</div>
Product Lifecycle Management Intern <div style="float:right">Sept 2022 – Oct 2023</div>
- 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) <div style="float:right">Hyderabad, India</div>
Engineering Intern <div style="float:right">Jun 2021 – Aug 2021</div>
- 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

Reddit Cryptocurrency Sentiment Pipeline <div style="float:right">Jan 2025 – Feb 2025</div>
- Built a Python-based data pipeline to extract Reddit posts from cryptocurrency threads using PRAW and Pushshift APIs
- Processed and cleaned unstructured text data, applied sentiment analysis models to classify posts as bullish, bearish, or neutral
- Stored metadata and sentiment scores in MongoDB and visualized time-series sentiment trends of crypto price movements

AI-Powered Multimodal Travel Guide with Agentic Architecture <div style="float:right">Oct 2024 – Dec 2024</div>
- 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 <div style="float:right">Aug 2024 – Sept 2024</div>
- 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