

EDUCATION

- **Indiana University** Bloomington, IN, US
Master of Science in Computer Science; GPA: 3.95/4 *Aug 2022 - December 2023/May 2024 (expected)*
 - **Courses:** Applied Algorithms, Computer Networks, Applied Machine Learning, Graph Analytics, Software Engineering, Computer Vision, Ongoing: Deep Learning, Natural Language Processing, Network Security.
 - **Projects:** Health Insurance Application (Software Engineering): Full stack application for search, appointments and reviewing of doctors and insurance plans. Implemented semantic search by using embeddings.

EXPERIENCE

- **Cummins, Inc.** Columbus, Indiana
Data Engineer Intern *May 2023 - Aug 2023*
 - **Full Stack Object Store application:** Developed a full-stack application that works as an object repository for internal files. Features include upload/download of objects, creating training modules and embed external videos. (Python, Django, HTML/CSS/Bootstrap, PostgreSQL)
 - **Customer Satisfaction Prediction:** Proposed and built a regression machine learning model to predict Customer Satisfaction from various parameters and ratings. Performed data cleaning and engineering. Used cross-validation to identify best performing model from Linear Regression, Decision Tree, Random Forest, etc. Visualized results in Power BI and presented to business users. (Python, Azure Databricks, Power BI)
 - **Other Projects:** Q&A Bot using Large Language Models (LLMs): Using Retrieval Augmented Generation (RAG) to build a document chatbot. Deployed internally in the organization and being actively tested. Used OpenAI API, Langchain, ChromaDB and deployed using Django.
Relevant Document finding using semantic search: Used embeddings based semantic search techniques to build a search application for internal documents. Deployed using Django.
- **Heritage Foods Limited** Hyderabad, India
Data Science and Software Engineering *Oct 2020 - Jul 2022 (Oct 2020 to Sep 2021 contract)*
 - **REST API development:** Developed a REST API for an internal mobile application in Flask. Included data validation, type validation, JSON input and output. Deployed on Heroku and actively used by the application. (Python - flask, Postman, SQL)
 - **Forecast Model:** Complete data science project life cycle including requirements gathering, data collection and understanding, exploratory analysis, modeling and presentation. Developed a commodity price prediction model with a Mean Absolute Percentage Error (MAPE) of 3%. Used Prophet routine along with python stack (pandas, plotly, jupyter) for testing.

PROJECTS

Automation Software Projects

Developed multiple software automation scripts consuming external APIs for cost saving and strategic planning purposes. Saved the company around 15,00,000 rupees (\$20,000) in annual recurring costs and helped design Sales strategy by identifying high performing locations. (Python)

Manufacturing Deviations

Developed a Python application that reads a TCP stream to detect manufacturing deviations and alert the teams. Setup automatic backups and logging for easier debugging. Deployed across India and actively used handling over 30,000 events per day. (Python, SQL, Tableau).

SKILLS

- **Languages, Frameworks and Tools:** Python, SQL, Java, C, Flask, Power BI, Azure Databricks, SparkSQL, Tableau.
- **Libraries and Skills:** Machine Learning, Deep Learning, Natural Language Processing, Computer Vision, Scikit-learn, Pandas, Numpy, Keras, TensorFlow, NLTK, SpaCy, Requests, Design Thinking.