

Preetham Reddy Vinnamala

996 N, WOODBRIDGE, BLOOMINGTON, INDIANA, 47408

savinn@iu.edu • (+1) 812 837 6856 • www.linkedin.com/in/preetham-reddy-vinnamala

EDUCATION

Indiana University, Bloomington, IN, United States

August 2022- May 2024

Master of Science in Data Science/ AI, Advanced Database Concepts, Statistics.

GPA: 3.64/4.00

National Institute of Technology, Raipur, Chhattisgarh, India

July 2015- May 2019

Bachelor of Technology in Electronics and Telecommunication Engineering (Honors)

GPA: 8.29/10.00

PROFESSIONAL EXPERIENCE

Mu Sigma Business Solutions Pvt Ltd, Bangalore, IN

Apprentice Leader- Research & Development

June 2022 – July 2022

- Continued leadership in completing the development of the **hyper-automation and predictive maintenance** application.

Decision Scientist - Research & Development

May 2019 – May 2022

- Led a team in researching and developing a **hyper-automation and predictive maintenance** application. (01/22 – 05/22)
- Configured and harnessed the **Ethereum blockchain's full node** to process and analyze NFT data.
- Engineered a cutting-edge **video analytics application** for real-time crowd analysis using **YOLOv5**.
- Developed two automated reports, leveraging **distributed data sources** to enhance leadership insight into individual, process, and platform performance.
- Championed the creation of a **health analytics** platform through in-house **EDA and Sentiment Analysis** shiny application.
- Spearheaded **AI chatbot** development, later integrated into company software, driving **3%** revenue growth.
- Improved model efficiency in a **pair trading application**, enhancing operations and boosting **profit** margin by **8%**.

ADDITIONAL EXPERIENCE

INDIANA UNIVERSITY, Bloomington, IN

Inventory Analyst- Part-time

Jan 2023 – May 2024

- Enhanced inventory accuracy** through advanced data insights to **94 %** and increased the **binning percentage to 83%**.

UITS Technical Consultant- Part-time

Aug 2023 – Present

- Providing technical support in UITS Consulting Services Mission areas, aiding clients in desktop/mobile computing

PROJECTS

- Segmentation of corpus callosum using **K Means Clustering and CNN** - 2D & 3D image segmentation
- Multi-variate time series air pollution forecasting using **LSTM Neural Networks and statistical models**
- Disease outbreak **time-series forecasting** and effective **classification** into risk categories using medical parameters.
- Chest cancer classification using **CNN** and complete end-to-end implementation using **MLflow and DVC**.
- Performed dedicated research on **contextual generative language models**, such as **OpenAI's GPT-3.5**, to understand their capabilities in generating high-quality and contextually relevant text.
- Explored and understood various key machine learning architectures **like GANs, Transformers, and RAG** to create a streamlit application for Image generation and contextualized text generation
- Engineered a **GCP Big Query and Looker Studio** project analyzing global song likability factors using top music datasets
- Comparative study of **Recommender Systems using GNNs**, including models like **LightGCL, SimGCL, and XSimGCL**
- Developed and Implemented custom machine learning models (SVM, MLP, SVD & PCA) from scratch using **Python**

SKILLS

Critical Skills: proactive learner, solution and experiment Designer, Problem-solving and analytical skills, Team Player

Programming Languages: R, Python, SQL, MATLAB, Shell Scripting

Databases: Mongo DB, Neo4j, MySQL, NoSQL, Postgres, Elasticsearch, Hive, BigQuery, Alfresco

Tools and IDE: Eclipse, Git, Tableau, Power BI, Shiny R, MS Office, Looker Studio, VS Code

Technologies: Docker, Kubernetes, Linux, RESTful APIs, Spark, Data Structures, TensorFlow, GCP, Natural Language Processing-NLP, Computer Vision, LLM, MLflow, DVC, AWS EC2, GANs, Transformer, RAG.

ACHIEVEMENTS

- 3 Spot Awards for dedicated work ethics and successful completion of tasks
- Quarter Finalists - Texas IICDC
- Final Round of Smart India Hackathon