VISHAL CHANDRU

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EDUCATION

- **Master of Science in Data Science** *Aug 2022 – May 2024*
  The University of Texas at Arlington *GPA – 4.0/4.0*

SKILLS

- Languages: C++, Java, Python, R
- Database: MySQL, PostgreSQL, VectorDB
- Analytics: Tableau, MS Excel, Power BI

- Libraries: TensorFlow, PyTorch, Scikit, MLflow, LangChain
- DevOps: Dockers, GitHub, DVC, Kubernetes
- Cloud: AWS, Heroku

EXPERIENCE

- **Graduate Teaching Assistant** *Jan 2024 – Present*
  Data Science Project Management
  - o Collaborated with the professor and guided students throughout the entire lifecycle of a Data Science Business Project.
- **Graduate Student Assistant** *July 2023 – Dec 2023*
  University of Texas, Arlington - The Office of the Vice President
  - o **Data Analysis:** Operated in the Vice President's Data Analyst Team to perform data analysis on enrollment data to provide insights for future Enrollment Opportunities at The University of Texas at Arlington.
  - o **Data Visualization:** Developed 2021-2025 SEM (Strategic Enrollment Management) Planning, Vision, Goal and Initiatives of UTA by perform ETL task and building dashboards using Power BI.
  - o **Portfolio Management:** Provide insights from Contract Management and offer recommendations on the renewal of the Contracts signed by UTA.
  - o *Tools:* **SAS, OAC, MS Excel, Tableau, Power BI, SQL.**
- **Data Scientist** *Oct 2021 – Nov 2022*
  Innomatics Research Labs
  - o **Model Management & Experiment Tracking:** Deployed the machine learning models in cloud and kept a track of the model parameters and logging the experiments by MLOPs.
  - o **Natural Language Processing:** Finetuned BART NLP Summarization models, and worked with LLMs.
  - o **Computer Vision:** Worked with OpenCV, Yolo, Semantic Segmentation algorithms.
  - o *Tools:* **Python, R, GitHub Actions, Dockers, MySQL, TensorFlow, PyTorch, GenAI**
- **Software Engineer** *Jan 2021 – Jun 2022*
  Larsen & Toubro Infotech
  - o **Development:** Built and performed Data Analysis on the Mobility Data Analysis Platform for Mercer-Marsh McLennan using SQL and Python.
  - o **Data Process Automation:** Automated the manual Data Analysis task by developing a python code that reduced the manual labor by 70%.
  - o **Leadership:** Communicated with Client-Project Manager and Business Analyst and drive the team in agile methodology to accomplish sprints and milestones.
  - o *Tools:* **JAVA, Python, PostgreSQL, API**

PROJECTS

- **Time Series Forecasting on Stock Prices** [Python, ARIMA, SARIMAX, LSTM]
  - o Created a streamlit application which predicts the stock prices of a particular company using Tiingo API.
- **Experiment Tracking and Model Management** [Python, Streamlit, MLflow, DVC, DagsHub, Docker, AWS]
  - o Built and containerized a Streamlit app, tracked with MLflow, DVC, automated CI/CD, and deployed on AWS ECR.
- **Recommendation Systems** [Python, TensorFlow, ScaNN, Ranking]
  - o Music and Movie recommender systems using collaborative filtering on public datasets.
- **Generative AI – Finetuning LLM Models** [Python, Hugging Face, Transformers, NLP, LLM, AWS]
  - o Performed Prompt Engineering (Zero-shot, One-shot, Few-shot) and PEFT (LoRA method) on Flan-T5 model.
- **Generative AI – RLHF LLM Models** [Python, Hugging Face, Transformers, PyTorch, AWS]
  - o Building a responsible AI with less toxicity using reinforcement learning by human feedback on finetuned Flan-T5 with reward model as facebook's roberta-hate-speech-dynabench-r4-target model.
- **RAG LLM Application using LangChain** [Python, OpenAI, Transformers, PyTorch, Pinecone, Weaviate, FAISS, AWS]
  - o Created a Chat LLM model using Retrieval Augmented Generation LLM to retrieve response from external PDF using Semantic Search on the Embedded chunks of PDF in the Vector Store/DB.