BHANU TEJA KURAKULA

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EDUCATION

University of Illinois at Urbana-Champaign

Master of Science in Information Management, (Data Science and Analytics)

(GPA: 3.94/4)

August 2023 - May 2025

Amrita University

July 2018 – June 2022

Bachelor of Technology in Electronics and Communication Engineering

(GPA: 3.34/4)

TECHNICAL SKILLS & CERTIFICATIONS

Programming Languages: Python, SQL, JavaScript, R

Platforms & Frameworks: AWS, Snowflake, Databricks, Azure, Airflow, Kubernetes, Tensorflow, scikit-learn.

Tools:

DBT, Terraform, Tableau, Git, Grafana, MongoDB, Docker, Alteryx

Machine Learning

Supervised, Unsupervised, Hypothesis Testing, MLOps, Neural Networks

AWS Solution Architect Associate, AWS Machine Learning Specialty

WORK EXPERIENCE

AGCO Corporation

June 2024 - Present

Advanced Analytics Intern

- Engineered 10+ complex ETL pipelines using AWS Glue, S3, and RDS, ensuring seamless data integration and consistent data conforming, resulting in standardized and reliable tractor sales data across Europe.
- Utilized **PySpark** to improve data processing efficiency by breaking down **Alteryx** workflows into multiple jobs, implementing comprehensive **unit tests** to ensure functionality and uphold **data quality** across all stages.
- Improved infrastructure provisioning by adopting a CI/CD approach with CloudFormation and YAML, enhancing scalability, automation, and reducing deployment time by 30% while minimizing manual setup errors.
- Conducted **data discovery** and created **data lineage** maps to facilitate workflow migration. Collaborated with stakeholders to document data flows and business requirements, ensuring a seamless transition through **UAT**.

Cognizant Technology Solutions

Data Engineer (AI & Analytics)

September 2022 - July 2023

- Spearheaded a proof of concept (POC) for **detecting fradulent insurance claims** using **machine learning**, showcasing innovation for future **production integration**. Demonstrated potential for improving data quality.
- Enhanced data warehouse reliability by leveraging Snowflake, DBT, Airflow and Grafana to monitor and troubleshoot issues. **Optimized SQL queries** and **tuned indexes**, resulting in 20% reduction in execution.

PhysioAI

January 2022 – February 2022

Data Science and Analytics Intern

- Developed a real-time yoga assistant using Azure, **TensorFlow**, and MediaPipe to accurately **detect and classify** over **30**+ yoga poses, integrating a voice assistant feature for real-time guidance and pose correction.
- Captured user progress through 40+ metrics and managed user data on **PostgreSQL**. Used Tableau to create a progress tracker and presented the POC during the monthly incubator meet.

Publications

Development of a Decentralized Web App (Dapp) for COVID-19 using AI, IEEE-Xplore

• Developed a decentralized web app using AI and blockchain for preliminary COVID-19 detection through chest X-ray analysis, achieving high accuracy with an ensembled Convolutional Neural Network model (CNN).

Insights from Microscopic Images, IEEE-Xplore

• Developed a web app using **deep learning** and **computer vision** to rapidly analyze microscopic blood images for cell **classification** and **counting**, potentially reducing CBC report generation time.

PROJECTS

Coupon Accepting Prediction Pipeline | MLFlow, EC2, S3, RDS, Terraform, Docker, Prefect, Github Actions

- Developed MLOps pipeline using XGBoost for coupon prediction, leveraging AWS and Terraform.
- Implemented MLflow for experiment tracking, Prefect for workflow orchestration, and Docker for containerization.
- Established CI/CD pipeline with GitHub Actions, automating testing and deployment processes.