

# BHANU TEJA KURAKULA

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## EDUCATION

### University of Illinois at Urbana-Champaign

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

August 2023 – May 2025

(GPA: 3.94/4)

### Amrita University

Bachelor of Technology in Electronics and Communication Engineering

July 2018 – June 2022

(GPA: 3.34/4)

## 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 fraudulent 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.

## 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

**Certifications** : [AWS Solution Architect Associate](#), [AWS Machine Learning Specialty](#)