ABHIGYAN ACHERJEE

Cincinnati, OH 45219 | acherjan@mail.uc.edu | (513) 807-4868

EDUCATION

University of Cincinnati | Ohio   **December 2024**
Bachelor of Science and Master of Science in Computer Science, minor in Economics.
GPA: 3.9/4.0.
Honors: IRIS HEP Fellow-Princeton University, Dean's List, Kautz-Uible Fellow, University Honors Scholar.

PROFESSIONAL EXPERIENCE

IRIS HEP Fellow | Princeton University   **Aug 2023-Apr 2024**
- Conducted research on integrating Automatic Differentiation Support to CERN's RooFit platform.
- Investigated missing support for different evaluation backends in the RooFit repository.
- Built support for code generation for multiple classes in RooFit using C++.
- Designed a bash pipeline to generate and compare benchmarks for different evaluation backends.

Data Science Intern | Possip   **May 2023-Aug 2023**
- Created a data engineering plan using Google Cloud to handle traffic of 1600+ schools.
- Wrote a script with TF-IDf vectorizer and knn to silo survey feedback into 5 buckets with 90% accuracy.
- Created a classification algorithm using LSTM and deep learning that achieved 93% accuracy.
- Optimized a data engineering pipeline, handling traffic for entire client roster.

Analyst | AMEND Consulting   **May 2022-Aug 2022**
- Collaborated to create a PySpark workflow to clean and train models on data sourced from client's ERP.
- Delivered insights into inventory optimization and reduced downtime by 17% for clients.
- Trained a model using a random forests model to tag defects in assembly with 20% increased accuracy.
- Presented weekly updates and deliverables to CIO and other company executives.

Data Analyst Intern | CERN   **Jan 2021-Aug 2021**
- Collaborated with a team from AGH Institute, Krakow to write software for the LHC experiment in CERN.
- Designed a pipeline for real time data mining and analysis from a particle subdetector.
- Created a workflow to simulate results and track outliers based on comparison with runtime data.

PROJECTS AND CERTIFICATIONS

Microsoft Certified-Azure Fundamentals   **Apr 2024**
- Passed the AZ-900 exam covering Azure fundamentals, services, management and governance.

RAG for Economics Sentiment Analysis-Cryptoeconomics Lab, UC   **Aug 2023-Dec 2023**
- Created a script for Retrieval Augmented Generation using Llama 2, Pinecone, and Langchain to understand academia sentiments regarding CPI and Unemployment.

Improving Optimization Algorithms in Maximum Likelihood Fits-Senior Design   **Aug 2022-Apr 2023**
- Investigated the Minuit Algorithm developed by CERN and its behaviors.
- Developed a code suite to test an optimization strategy to reduce runtime by 38% for multiple use cases.
- Presented findings, and secured 1st place in best poster presentations category at CEAS Expo 2023.

Reddit Stock Price Predictor   **Jul 2023**
- Mined data from the subreddit r/WallStreetBets using Reddit API.
- Created a ML model that analyzes the latest stocks based on discourse in r/WallStreetBets.
- Utilized a TF-IDf vectorizer in with k-means to cluster stocks into buy/sell/hold and create metrics.

SKILLS

Python, C++, SQL, C, AWS Sagemaker, Docker , PowerBI, Github, Java, GCP, Bash, JavaScript, CSS, HTML