ABHIGYAN ACHERJEE

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

EDUCATION

University of Cincinnati | Ohio **Expected Graduation: Aug 2024**
Master of Science, Bachelor of Science (MS+BS) in Computer Science, minor in Economics.
GPA: 3.95/4.0.
Honors: IRIS HEP Fellow-Princeton University, Dean's List, Kautz-Uible Fellow, University Honors Scholar.

PROFESSIONAL EXPERIENCE

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-ID 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-European Organization for Nuclear Research **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 of from a particle subdetector.
- Programmed an algorithm to handle 40X higher rates of data acquisition due to increased luminosity.
- Created a workflow to simulate results and track outliers based on comparison with runtime data.

PROJECTS AND RESEARCH

IRIS HEP Fellow-Princeton University **Aug 2023-Mar 2024**
- Conducted research on integrating Automatic Differentiation Support to CERN's RooFit platform.
- Created benchmarks for Minuit optimizer for RooFit's codegen algorithm.

Improving Optimisation 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-ID vectorizer in with k-means to cluster stocks into buy/sell/hold and create metrics.

Spotify Playlist Generator **May 2023**
- Accessed personal playlist data using the SpotiPy package manager and created a playlist generator using Spotify audio features to extract 'grunge' genre songs.

Home Price Predictor: **Nov 2022**
- Created a home price predictor utilizing a random forests model as an add on along with IRR projections for a venture capital project in Queen City Consulting.

SKILLS

Python, C++, SQL, Azure, Amazon Sagemaker, C, RooFit, PowerBI, Git, PySpark, GCP, MATLAB, Bash.