Jay Trevino

713-248-3303 • jayalexandertrevino@gmail.com • https://github.com/jat2211

EDUCATION

Columbia University, Class of 2023

Bachelor of Arts (B.A.) in Computer Science

- **Grad Coursework:** Machine Learning, Natural Language Processing, Networks & Crowds, Databases, Probability Theory
- **Awards & Involvement:** Dean's List, Data for Good Scholar, Hackathon Finalist, Columbia Build Lab

EXPERIENCE

Machine Learning Engineer | Rosetta Analytics 10/2023 - 7/2024

- Redesigned daily trading platform (used to monitor trades up ~$90 million/day) to catch code failures ahead of time.
- Made a machine learning trading strategy to serve as a benchmark for internal strategy research, and participated in weekly research reviews of reinforcement learning papers.
- Created all the analytics for decks used to pitch strategies to investors.

Data Science Researcher | Rights CoLab 10/2021 - 3/2023

- Employed NLP to financial data for human rights policy standardization, extracting over 1000 financially material terms.
- Performed a qualitative analysis of 3 database resources, and advocated for incorporating Korean financial reports as a non-Western data source to inform more inclusive applications in human rights policy.
- Automated collection and translation of 50 Korean financial reports as proof of concept, used Excel to validate data, and authored a 10-page report showcasing automation success—scaling initial data collection by a factor of 63.5.

Cloud Data Analyst Intern | Workday Inc. 5/2022 - 8/2022

- Constructed 10 Looker dashboards, visualizing over 50 key performance indicators (KPIs), to optimize account- level cloud spending and data governance.
- Independently created a 97% accurate time series forecasting model, surpassing the company baseline of 85% accuracy.
- Modeled projected savings upwards of $10,000 monthly from AWS instance upgrades.

Data Engineering Intern | Columbia Build Lab 9/2021 - 5/2022

- Deployed backend data pipeline to interview audio in mock startup environment.
- Assisted in API design with real-time data interaction with Tableau and MongoDB, and executed dev tasks with CircleCI.
- Employed sentiment analysis and topic modeling to data, and visualized the 5 most relevant topics for focus group analytics.

Astronomy Intern | University of Texas at Austin 6/2021 - 8/2021

- Varied parameter space in 4 dimensions using a test galaxy to generate a grid of probable optical spectra with Pandas.
- Designed a bash script to run 108,000 simulation files on an HPC cluster for parameter constraint analysis and data modeling.
- Gave a 2-hour poster session that demonstrated 3 emission line ratios of galaxies with simple stellar population models.

RESEARCH

Photoionization Modeling | Astronomy REU at the University of Texas at Austin

Used photoionization modeling code to model 45 galaxies from the CLASSY database using Binary Population and Spectral Synthesis and the measured nebular conditions to constrain the intrinsic ionizing continuum and reproduce the observed emission-line spectra.

CMB Foreground Cleaning | Cosmology Research at Columbia University

Optimized Cosmic Microwave Background (CMB) maps by minimizing variance and skewness using Python, achieving cleaner data by addressing non-Gaussian distributions caused by Milky Way dust.