Evan Dietrich

evandietrich.dev | GitHub | LinkedIn | dietrichevan@comcast.net

EXPERIENCE

J.P. Morgan **New York, NY**
Software Engineer, Global Algorithmic eTrading Group *Feb 2022 – Present*

- Building highly performant, large-scale (> 1 billion orders per day) pricing strategy and order execution applications for ultra low-latency electronic trading system, enabling market making in fixed income products. (*C++, Python*)
- Developing an automated stress-testing framework that subjects electronic trading system to intensive volatility and trade volume, replacing week-long quarterly compliance procedure with half-hour runtime results. *(Python)*
- Redesigning algorithmic hedging execution strategy to use statistical methods and historical PnL in determining venue selection, increasing profit spread and improving flow internalization in EMEA futures markets. (*C++*)

Software Engineer Intern, Commodities Energy Team *Jun 2021 – Aug 2021*

- Designed and engineered a markets web application, supporting ad-hoc order requests and generating risk simulations for commodities traders using the investment bank's Athena platform. (*Python, TypeScript*)
- Remodeled data pipeline to streamline trade execution, improving order fulfillment speed by 3x. *(Python)*

Software Engineer Intern *Jun 2020 – Aug 2020*

- Built quantitative clustering model to detect at-risk clients and generate personalized feed based on financial health metrics and historical company data, increasing client engagement metrics to 83% from 20% benchmark. (*Python*)
- Created and launched a mobile-first web app for real-time messaging and virtual appointment scheduling, supplying a nonprofit partner with a secure connection to 4500+ small-business clients. (*Bootstrap, Django, SQL*)

Massachusetts Institute of Technology (MIT) **Cambridge, MA**
Student Technical Researcher *Aug 2019 – April 2021*

- Architected a data mining pipeline to extract high-level language features from hand and face movement in video, reducing unnecessary data usage by 28%. (*NumPy, Python*)
- Constructed a series of machine learning models for the translation of American Sign Language to English, which increased translation accuracy from 60% to 94% on a robust NLP lexicon of emergency phrases. (*Poster*)

Software Engineer Intern, Lincoln Laboratory *May 2019 – Aug 2019*

- Programmed and tested REST API, request-handler, and user interface of client-server system running calibration tests on lasercom terminals, replacing 3-week manual testing with 12-hour automation. (*C++, MATLAB, Poster*)

EDUCATION

Georgia Institute of Technology **Atlanta, GA**
M.S. in Computer Science, specialization in Machine Learning; online part-time *2023 (expected)*

Tufts University **Medford, MA**
B.S. in Computer Science, B.S. in Cognitive Brain Sciences; GPA: 3.76 *May 2021*
Awards: Edgar N. and Faith A. Johnson Scholarship, Dean's List
Select Coursework: Artificial Intelligence, Algorithms, Calculus, Computation Theory, Computational Modeling, Data Structures, Discrete Math, Linear Algebra, Logic, Machine Learning, Machine Structure & Assembly Language, Macroeconomics, Microeconomics, Natural Language Processing, Statistics, Programming Languages

PROJECTS

Loan Repayment Likelihood: Produced data analytics model leveraging financial records and performing sentiment analysis on client messages for early loan default warning and detection, winning J.P. Morgan's global hackathon
Equitable Data Generation: Employed novel data mining and augmentation techniques to generate realistic fake data for use in adversarial neural networks, solving limitations of pre-existing databases and winning annual MIT I3C competition.

SKILLS

Languages: Python, C++, MATLAB, R, C, Java, HTML/CSS, TypeScript
Technologies/Frameworks: AWS, Agile, Django, Flask, Git, Jupyter, Linux, NetworkX, NumPy, Pandas, Plotly, React, Scikit-learn, Selenium, Stata