Stephen R. Savas

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EDUCATION:

Northwestern University Evanston, IL

M.S. Computer Science, AI/ML focus; GRE: 170/170 Quant, 163/170 Verbal Expected June 2025

- Thesis project on Causal Discovery and Machine Learning in progress

B.S. Computer Science Major, AI/ML focus; Business Minor; 3.44 GPA June 2024

- President of Algorithmic Equity Trading Club: Designed, coded, & back tested trading strategies
- IEEE: Won first place at IEEE showcase twice, using machine learning on MRI scans to diagnose brain tumors (2022) and Alzheimer's (2023)
- Member of Formula SAE Racecar Team: Developed C++ code to monitor vehicle performance

Saddle River Day School Saddle River, NJ

High School Diploma; 3.95 GPA, ACT 36/36, Honor Roll 2016-2020 May 2020

- Class President Sophomore, Junior, and Senior years (2017-2020)
- Scholar Award (valedictorian); Humanitarian Award (personal conduct, leadership, and service)

EXPERIENCE:

Northwestern Comp. Sci. / Medical Research - Researcher, Feb. 2024 - Present Evanston, IL

- Employing causal machine learning on Epic health records and other clinical data sets to determine causes of Early Onset Breast Cancer in partnership with Northwestern Medicine
- Leading exploration and development of robust study designs to ensure detection of causality

Merck & Co - Software Engineering Intern, Jun. - Aug. 2024 Rahway, NJ

- Exploring the use of machine learning for predicting antigen-antibody reactions to design both multiple antibodies that bind to the same antigen from different locations
- Developing an automation with Power Automate for user permissions review (95% labor savings)
- Creating a Quality Assurance Plan (QAP) and Requirements Specification (RS) for new adverse event data analysis tool

Virtu Financial - Summer Agency Trading Intern, Aug.-Sep. 2023 New York, NY

- Analyzed data and simulated market situations to research new ways of utilizing principal market making services for trading execution algorithms (expected to yield ~$1 million annually)
- Performed analysis on historic trade data under different market scenarios to identify opportunities that improve trading algorithms to best meet client needs
- Queried database trade information as an input to daily client performance reports

Weiss Multi-Strategy Advisors - Summer Analyst Intern, Jun.-Jul. 2023 New York, NY

- Designed and coded multiple tools to optimize portfolios (e.g., parametric portfolios) and created a dashboard to compare key performance metrics (e.g., sharpe ratio, drawdowns)
- Helped create a document-search platform with OpenAI's GPT and embeddings technology
- Developed a tool to identify pair trading opportunities using cointegration and z-score

Luma Financial Technologies – Software Engineering Intern, Jun.-Sep. 2022 New York, NY

- Developed a program to exchange data on financial products for a partnership with Morningstar; utilized a query in Snowflake/SQL and used AWS Lambda to manage and store data
- Conducted maintenance and development on Java-based application to provide real-time pricing and product data from issuer banks (e.g. Societe Generale, Goldman Sachs)

SKILLS:

- Coursework: Causal Inference, Graphical Models, Machine Learning, Data Science, Natural Language Processing, Quantum Computing, Algorithm Analysis, Data Structures
- Technical: Python, Numpy, Pandas, PyTorch, Tensorflow, Keras, C/C++, SQL, Java, AWS, and Snowflake; GitHub, Google Workspace, MS Office, Bloomberg Terminal, ChatGPT
- Personal: Strong communications, teamwork, and leadership; Self-motivated, hard working, inquisitive, analytical, coachable, and creative

HOBBIES: Fantasy Football and related computer modeling, Skiing, Family Travel, Soccer, Tennis