Vincent Yeh

vincenty0229@gmail.com (626)-731-8055 Citizenship: United States

Education

Stanford University **March 2024**
M.S. Management Science and Engineering (Financial Analytics) - Ranked 1st out of 138 **GPA:** 4.200

University of California, Los Angeles **June 2022**
Double major: **B.S.** Electrical Engineering - Summa Cum Laude **GPA:** 3.938
B.S. Financial Actuarial Mathematics - Top two 2022 graduates

Relavent Coursework: Machine Learning, Artificial Intelligence, Optimization, Game Theory, Financial Risk Analytics, Mathematics of Finance, Theory of Interest, Advanced Investment Science, Probability Theory, Stochastic Processes

Professional Experience

Five Dimensions Energy LLC

Trading Associate (Commodities) **Jan. 2024 - Present**

- Implementing and researching state-of-the-art machine learning algorithms for time series prediction with applications in electricity markets. Topics include transformer-based and frequency domain models.
- Creating a quantitative research framework specifically for energy futures that streamlines trading strategy development.
- Setting up analytical tools in Python from ground up. Responsibilities include deciding on data structures for computation efficiency and creating time-series manipulation functionalities.
- One of the founding members of the OTC desk. Part-time during Jan.-Mar. 2024, and full-time since Apr. 2024.

WorldQuant LLC

Quantitative Research Intern **Aug. 2022 - Sept. 2022**

- Developed multiple long-short trading algorithms with low pairwise correlation (<0.5), low turnover (<50%), high Sharpe ratio (between 1.8-2.5) and exceptional margins using price-volume, fundamental and news data sources.
- Came up with unique distribution-based trading strategies that achieved extremely low (<0.2) correlation with conventional momentum and mean-reversion algorithms.
- Implemented novel analytic modules in C++ to facilitate strategy development on WorldQuant's internal research interface.

The Aerospace Corporation

Academic Year Research Intern **Sept. 2021 - May 2022**

- Researched photonics-based Reservoir Computing (RC) with the goal of realizing an efficient way to train the weight of the output layer (Wout), and addressing the bottlenecks in the physical system implementation.
- Explored the degradation mechanisms of transistors (MOSFET, FinFET and HEMT) using machine learning algorithms.
- Wrote efficient machine learning scripts in Python to extract critical information from measurements and pulse signals.

Technical Intern IV **June 2021 - Sept. 2021**

- Applied machine learning and advanced data analysis techniques, including Principal Component Analysis (PCA), Partial Least Squares (PLS), Neural Network, Fast Fourier Transform (FFT) and curve fitting to predict device failure.
- Discovered strong correlation coefficients of above 0.9 between degradation figures of merit and partial least squares scores.
- Analyzed large datasets by relating machine learning spaces to physical phenomena in extraneous experimental factors.

Publications

- **Yu-Wei V. Yeh**, Dmitry Veksler, Andrew Hall, and Carl T. Boone, "Second Order Effects and Machine Learning For Failure Prediction in Microelectronic Components", GOMAC-Tech, March 21-24, 2022
- D. Veskler (Presenter), **V. V. Yeh**, C. T. Boone, and D. G. Pierce, "Combining Multi-Timescale Transient Current Measurements with Machine Learning for CMOS Reliability Assessment", MRQW, February 08-10, 2022

Awards

- **Recipient,** Outstanding Academic Achievement at the Graduate Level (Ranked 1st out of 138 graduates) June 2024
- **Recipient,** Summa Cum Laude (Top 5% in School of Engineering) June 2022
- **Recipient,** 2022 Outstanding Actuarial Science Student Award (Top 2 graduates) June 2022
- **Inducted Member,** UCLA Tau Beta Pi-California Epsilon Dec. 2020