

THEODOSIOS (THEO) DIMITRASOPOULOS

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ACTIVITIES

Social Chair

Princeton Terrace Club

- Hosted social events and activities for 180 student members, managing a \$250,000 annual budget;

Student Athlete

Princeton Varsity Rowing

- Weekly 20-hour practice and weekend regattas (lightweight men's eight, bowman)

EDUCATION

Stevens Institute of Technology School of Business

GPA: 3.8

- Master of Science (MS),
- Financial Engineering

Select Coursework

- Pricing and Hedging
- Portfolio Theory
- Advanced Derivatives
- Risk Engineering
- Computational Methods in Finance
- Private Equity and Venture Capital
- Financial Machine Learning
- Market Microstructure & Trading Strategies
- Stochastic Calculus

Princeton University

GPA: 3.0

School of Engineering & Applied Science

- Bachelor of Science in Engineering (BSE),
- Civil & Environmental Engineering
 - Minor in Architectural Computation

Select Coursework

- Statistical Learning and Data Science
- Probability Theory
- Statistics
- Honors Linear Algebra
- Multivariable Calculus
- Finite Element Analysis
- Differential Equations
- Skyscraper Design

PROFESSIONAL SUMMARY

Portfolio Optimization, Optimal Execution quantitative developer with experience using Python APIs, Git, and various scientific packages (pandas, numpy, scipy, scikit-learn, streamlit, anthropic, statsmodels).

CORE COMPETENCIES

- Technology skills: Python (TradeSpex, statsmodels), Linux, Git, CI/CD pipelines, PyCharm, Visual Studio, Microsoft Excel, Typesetting (LaTeX).
- Modeling skills: Efficient Frontiers, Portfolio Optimization.
- Subject matter expertise of equity risk topics and generation of basic analytics in equity analysis: liquidity, predicted future volume, optimal execution price etc.
- Basic proficiency in options pricing and trading techniques.

EXPERIENCE

Associate (Quant Development) - *Instinet, Nomura Securities, London, UK* 2024-2026

- Explored TradeSpex (in-house data API) to identify new opportunities in algorithm design and to improve existing infrastructure (API calls, data analysis for factor construction etc.)
- Managed the development a trade optimiser to serve impact and bin-by-bin (intraday minute) efficient trading frontier vectors to our traders and clients (separate revenue stream for external clients pulling data from the service) with the team.
- Managed CI/CD pipelines for DataJobs with in-house SQL databases and side-development with DBVisualizer.

Associate (Quant Development) - *Instinet, Nomura Securities, New York, NY* 2023-2024

- Continuously developed and updated a trade optimizer to serve impact and bin-by-bin (intraday minute) efficient trading frontier vectors to our traders and clients (separate revenue stream for external clients pulling data from the service) with the team.

Analyst (Quant Development) - *Instinet, Nomura Securities, New York, NY* 2021-2023

- Built multi-region trading optimisation infrastructure to supplement our machine learning engine with the team.

Fall Analyst - *Instinet, Nomura Securities, New York, NY* Fall 2020

- Built an automated test case engine to improve gateway functionality (Latency Sensitive Electronic Trading group).

Summer Analyst - *Instinet, Nomura Securities, New York, NY* Summer 2020

- Developed state change propagation algorithms to improve order delivery (LSET group).

Research Engineer - *Terreform ONE, New Lab, Brooklyn, NY* 2018-2020

- Led Simulation & Fabrication team in large-scale rapid prototyping projects, NY, Tel Aviv.
- Authored grant proposals and presented to investors as well as the public (more than 200 in 4 instances).

RESEARCH

Regime Detection using Hidden Markov and Support Vector Machines (scikit-learn)

- Created/backtested HMM and SVM classifiers on ETF time series to improve short-term predictions for stock returns.

Pricing Asian Options with Monte Carlo and Lévy matching-moments (Keras)

- Built a Monte Carlo pricing simulator and implemented the Lévy matching-moments method to measure performance.

Optimal Trade Execution — Almgren-Chriss and Reinforcement Learning

- Created a closed-form trajectory that minimises the expected execution cost plus a risk-aversion-weighted variance of implementation shortfall, tracing an efficient frontier from gradual TWAP-like liquidation to aggressive front-loading.