milewis@cims.nvu.edu

25 Park Lane South, Jersey City, NJ 07310

I have worked eight years in fast-paced environments where I've been relied upon to solve problems others couldn't. By leveraging an extensive background in research and advanced mathematical and computing techniques, an industrious work ethic, and honed coding skills, I develop new and innovative methods to obtain improved results.

Education

Courant Institute of Mathematical Sciences, NYU

Ph.D. Mathematics

M.S. Mathematics

Accolades: Henry M. MacCracken Fellowship, Member of American Mathematical Society (AMS)

Massachusetts Institute of Technology

S.B. Mathematics, Minor in Economics

Related Coursework:

Numerical Methods / Analysis / Optimization, Monte Carlo Methods, PDEs, Numerical Methods for PDEs, Probability, Statistics, Mathematical Modeling, Stochastic Optimal Control, Financial Theory, Game Theory, International Trade, Behavioral Economics, Data Structures, Algorithms, High Performance Computing

Work Experience

Banc of America Securities

Vice President, E-Trading Quant

Enhance trading algorithm

Goldman Sachs Asset Management

Vice President, Multi Asset Solutions (MAS) Strat

New York City, NY. 2019 - 2023

New York City, NY.

2023 - present

• Lead integration of ESG data for benchmark / position analytics, and projects on ESG related research

- Project lead in Managed Accounts JV w/ Next Capital, as well as in-house glidepath analytics
- Improve accuracy, speed, and robustness of portfolio optimization processes
- Develop enhanced signal processing tools, such as time-shift imputation for international returns time series
- Research quantitative trading signals

Guggenheim Partners / Delaware Life

Vice President, Quantitative Researcher

New York City, NY.

2016 - 2018

- Designed and implemented high-performance systems in Perl and Python
- Consulted on risk management and performance metrics
- Interviewed, curated, and managed a team of quantitative researchers / strategists
- Researched literature, Machine Learning in particular, and developed investment strategies
- Co-authored with M. López de Prado:

"Detection of False Investment Strategies Using Unsupervised Learning Methods"

Courant Institute of Mathematical Sciences

New York City, NY.

Ph.D Candidate / Research Assistant under Jonathan Goodman

2010 - 2016

• Applied Markov Chain Monte Carlo methods, Bayesian analysis to the study of cryo-electron microscopy

Banc of America Securities

New York City, NY. 2005 - 2008

Financial Analyst / Associate in the RMBS Modeling Group

Supported and enhanced mortgage prepay model for trading desk

- Supported Modeling and Strategist groups for RMBS
- Created PERL reporting scripts and modified C code
- Ran mortgage delinquency and prepay analysis for ad hoc trading desk requests
- Led QA testing projects on DB

Computer Skills / Other

- Programming Languages: Slang, Python (strong), Java, PERL, C++ (moderate)
- Software: Microsoft Office, iPython, Matlab, R, LATEX, SQL
- Skills: Data Science, Math Modeling, High Performance Computing
- Certifications: Passed the Series 63 and Series 7 Exams (2006)

tel: (917) 363-5251

2016 (GPA: 3.9/4.0)

New York City, NY

Cambridge, MA

2004 (GPA: 4.4/5.0)