Beau Coker

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PROFILE

Master's student in statistical science with industry experience in quantitative finance, research experience in physics, and a keen interest in Bayesian statistics, statistical mechanics, and machine learning. Seeking a summer internship.

EDUCATION

DUKE UNIVERSITY

MS in Statistical Science
Expected May 2018 | Durham, NC

TUFTS UNIVERSITY

BS in Engineering Science
May 2013 | Medford, MA
Second Major in Mathematics
Minor in Economics
Magna Cum Laude
Dean's List (all semesters)

COURSEWORK

GRADUATE

Machine Learning
Bayesian Methods and Modern Statistics
Statistical Programming
Real and Complex Analysis
Stochastic Differential Equations
Statistical Mechanics

UNDERGRADUATE

Real Analysis
Numerical Analysis
Probability
Statistics
Linear Algebra
Differential Equations
Microeconomics
Macroeconomics
Econometrics
Data Structures

SKILLS

PROGRAMMING

In decreasing order of experience:
MATLAB • Mathematica
R • Python • C++ • SQL

EXPERIENCE

STATE STREET ASSOCIATES | Assistant Vice President

July 2014 – May 2016 | Cambridge, MA

- State Street Associates is a quantitative financial research group and academic partnership with professors at Harvard and MIT. In particular, I worked for Portfolio and Risk Research, a group that generally focuses on how market turbulence, systemic risk, illiquidity, and currency movements impact portfolio management.
- Lead analyst on the Liquid Private Equity Index, a recently launched product that uses sophisticated regression techniques to track private equity with publicly traded securities.
- Daily user of MATLAB to implement things like regularized regressions, quadratic optimizations, impulse responses, and various econometric techniques.

STATE STREET GLOBAL MARKETS | Senior Associate

July 2013 – July 2014 | Boston, MA

- Completed three 4-month rotations.
- Wrote VBA programs and SQL scripts related to currency hedging.
- Optimized process flows for client onboarding.
- Developed methodology and wrote MATLAB code for a currency pairs trading model for FX Global Macro Research.

STATE STREET ASSOCIATES | Intern

June 2012 – Aug 2012 | Cambridge, MA

- Completed a summer internship with Portfolio and Risk Research, a group for which I later worked full time.
- Largest project analyzed rebalancing frequency and transaction costs for a large-cap equity portfolio.

RESEARCH

TUFTS SOFT MATTER THEORY | Undergraduate Honors Thesis

Jun 2012 – May 2013 | Medford, MA

- Advised by Tim Atherton in the Tufts Physics Department, our research focused on scrutinizing various physical analogues of stock market crashes. In particular, we compared Monte Carlo simulations of Ising ferromagnetic systems to over 20 years of minute- by-minute stock market data.
- Wrote all code in Mathematica and C++ and frequently used the Tufts Computing Cluster.
- Received Highest Honors distinction.
- Professor Atherton and I continued this project in summer 2016 to work towards submitting a paper.

OTHER

2014	Passed CFA Level 1 Exam
'13-'14	Volunteered as a high school math and science tutor
2013	Received Highest Thesis Honors
2012	Received Honorable Mention in the Mathematical Contest in Modeling