**Patrick Ding** 

Email: patrickding00@gmail.com

Phone: 585-857-6949

Github: <a href="https://github.com/delimited0">https://github.com/delimited0</a> Website: <a href="http://delimited0.github.io/">https://github.com/delimited0</a>

**Education** Princeton University, Princeton, NJ

June 2015

**Degree:** BSE in Operations Research and Financial Engineering, with Honors Certificate in Applications of Computing

**GPA:** 3.58

**Coursework includes:** Machine Learning, Bayesian Statistics, Regression and Time Series, Finance, Probability and Stochastic Systems, Algorithms and Data Structures, Optimization

**Experience** AllianceBernstein, New York, NY

June 2015 – Present

884 West End Ave Apt. 53

New York, NY 10025

Associate, Multi-Asset Solutions

- Modeled expected returns of index options and variance swaps
- Developed new Matlab framework and infrastrucure for backtesting option strategies

### AllianceBernstein, New York, NY

June – August 2014

Intern, Multi-Asset Solutions

- Conducted research on currency exchange rate volatility strategies
  - Collected and analyzed currency options data using Matlab and Excel
  - Backtested trading strategies involving currency variance swaps
- Presented results to audience including CIO

## Educational Testing Service, Princeton, NJ

June - July 2013

Intern, Data Quality Services

- Used statistical methods to show the value of Data Quality Services department to ETS
  - Applied reliability analysis using SAS to gauge exam administration and scoring quality
  - Conducted survey to measure cost and time savings for ETS due to Data Quality Services
- Created prototype of web portal for showing data quality statistics using HTML and CSS
- Presented results at company-wide symposium

# **Research** Predicting Equity Index Volatility with Text Information

September 2014 – April 2015

Senior Thesis

Study the effectiveness of using various text sources to forecast equity index volatility

#### Effect of Bedrock Age on Earthquake Frequency

November 2011 – January 2012

Geoscience Seminar

• Conducted statistical analysis of earthquake data using Matlab and ArcGIS

#### Activities

#### Residential College Peer Tutor, Tutor

September 2012 – May 2015

• Teach students statistics, probability theory, and computer science

Flute

2003 – Present

Orchestras, bands, in high school and college

## Skills

Computer: R (Rcpp, ggplot2), Matlab, Python, C, Java, Microsoft Office, SQL, Javascript

Language: Conversational Mandarin Chinese