



# Dongxu Li



## Education

2016-08 -  
2017-12

### Mathematics department, University of Michigan, Ann Arbor, M.S. Mathematical probability and Statistics

- GPA: 3.90/4.00, currently focus: Quantitative Finance and Risk Management
- Current Courses: Numerical Method, Stochastic Analysis, Statistical Analysis of Financial Data
- Upcoming Courses: Computational Finance, Convex Optimization, Machine Learning, Intermediate programming in python
- Active learner on Online Open Courses: Apply Machine Learning in Python, Neural Networks and Deep Learning
- Member of Michigan Data Science Team

2012-09 -  
2016-06

### Mathematics department, Dalian University of Technology, B.S. Information And Computational Science

- GPA: 3.88/4.00, Concentrate in Applied Mathematics and Computational Methods
- Core Course: Multivariable calculus, Advanced Algebra, Real and Complex Variable Function, Numerical Analysis
- Mathematical Contest in Modeling, 3rd prize, 2014. Interdisciplinary Contest in Modeling, 3rd prize, 2015
- Member of Young Volunteers Association at DLUT, Member of Chess Club at DLUT



## Project Experience

2017-07 -  
present

### Exploring Network Structure of S&P 500

- Visualize the stock price return correlation table of selected tickers in S&P 500.
- Construct network structure of the stock universe based on the correlation coefficient, detect network clustering and grouping.
- Analyze the turmoil of stock price spread through the network structure, and explore potential profitable trading strategy.
- Test strategy through Quantopian paper trading platform.

2016-09 -  
present

### Mathematical Finance Project

- Geometric interpretation of Financial Derivatives.
- Fit Martingale Model for short rate using Treasury Strips Data, under floating short rate setting, pricing European option by using General Black-Scholes-Merton theory.
- Barrier option pricing with Monte Carlo simulation and with reflection principal on a Brownian Motion setting.
- Employ Markowitz theory to generate and constantly update market portfolio of S&P, then calculate the accumulative P&L.

2016-03 -  
2016-04

### Summer Intern

- Sales Account Summer Intern, Credit Center, China Merchants Bank, Shandong
- Software Intern, Intelligent Application Department, Neusoft, Dalian

2015-10 -  
2016-04

### Research Assistant at Computer Vision Lab

Project: Relative Attribute

- Rank images in the LFW (Labeled Faces in the Wild) data set according to the strength of certain attributes, such as grayscale of people's hair and visibleness of teeth.
- Improved the efficiency of learning RankSVM function using optimization toolbox.

2013-06 -  
2014-07

### Research Assistant at Computer Social Science Lab

Project: Evolutionary Game in Space

- Explore evolutionary games and population dynamics in a small world network by conducting Monte Carlo simulation.
- Simulate Ebola transmission in Africa, and developed optimal medical manufacturing and delivery strategy to control the spread of the disease.



## Summary

Dongxu is a highly productive and self motivated learner.

He is a team player and great listener.

He has passion for life, technology and mathematics.



## Personal Info

### Address

1613 Beal Ave, Apt 4, Ann Arbor, MI 48105

### Phone

(734)660-8790

### E-mail

dongxuli@umich.edu

### Portfolio Website

<https://leodongxu.wixsite.com/quant>



## Skills

### Fundamental Math (Calculus, Linear Algebra, Probability)



### Anaconda Data Science Platform: Python (numpy, pandas, scipy, scikit-learn, matplotlib)



### Matlab



### R



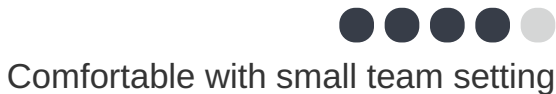
### Basic Linux Command Line



### Bloomberg and Factset Terminal



### Team Work



### Public Speaking



### English



### Mandarin



### Sports (basketball, tennis, ping pong, swimming, Hiking)

