# 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

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## Skills

**Fundamental Math (Calculus, Linear Algebra, Probability)**
Advanced

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

**Matlab**
Project Experience

**R**
Project Experience

**Basic Linux Command Line**
Beginner

**Bloomberg and Factset Terminal**
Beginner

**Team Work**
Comfortable with small team setting

**Public Speaking**
Beginner

**English**
Fluent

**Mandarin**
Native speaker

**Sports (basketball, tennis, ping pong, swimming, Hiking)**
Advanced