



Dongxu Li



Project Experience

2017-07 - present

Exploring Network Structure of S&P 500

- Visualizing 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 Practice

- Geometric interpretation of Financial Derivatives.
- Fitting 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.
- Stochastic optimal control: simple dynamic programming on portfolio optimization with linear regulator.

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

- Ranking 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

- Exploring evolutionary games and population dynamics in 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.



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.
- 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, Concentration 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



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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Portfolio Website

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



Skills

Fundamental Math (Calculus, Linear Algebra, Probability)



Anaconda Data Science Platform(python)



Matlab



R



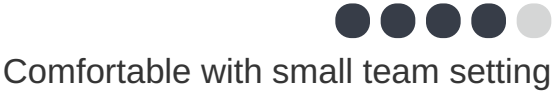
Basic Linux Command Line



Bloomberg and Factset Terminal



Team Work



Public Speaking



English



Mandarin



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

