
EDUCATION & AWARDS

Fordham University

Ph.D. in Financial Economics

New York, NY
Expected 05/2022

- GPA: 3.79

Duke University

M.A. Economics

Durham, NC
05/2018

- Academic Merit Scholarship - Department of Economics

Portland State University

M.S. Mathematics

Portland, OR
06/2016

- International Student Retention Scholarship (6 consecutive quarters)

Stanford University, Department of Statistics

Summer Session with Statistical Consulting Project

Stanford, CA
06/2014 - 08/2014

- Developed an algorithmic hedging strategy for stopping loss based on subsidiaries in Global market, OTC market and high-correlated counterparties, cutting 32% of loss in withdrawal of investment, averagely.

Portland State University

B.S. Mathematics

Portland, OR
06/2014

- Barbara McDougall Scholarship (Sole winner for best annual academic performance in Department of Math)

WORKING EXPERIENCE

Gabelli School of Business

PhD Research/Teaching Assistant

New York, NY
05/2019-08/2019

- Assisted 9 PhD students with literature review over 80 top paper journals, data cleaning, econometrics identification and model validation, for the topics of hedging during trade war, measuring tails risks for Sci-Tech Board, A Bayesian LSTM model of evaluating the bubble with junk bond volume in secondary market & treasury bond size & Federal interest rate evolution pattern, satisfaction (CSI) & market growth & earnings & market share in new-retail economy in China, the efficiency increase and market equilibrium of two-sided market in China, vertical integral of new high-tech agriculture in China.
- Assisted coursework for professor Zhiguo He (Chicago Booth), Yi Tang (Fordham GSB), and An Yan (Fordham GSB).
- Led lab sessions of applied econometrics course for PhDs. Assisted students with R coding with problems in 2SLS, nonparametric statistics, M-estimation, and nonlinear regression.

Duke University, Department of Mathematics

Teaching Assistant

Durham, NC
08/2017-05/2018

- Led graduate Mathematical Finance/Financial Derivatives labs; supported students with R programming.
- Evaluated paper trading performance of groups in class mimic trading contest, with Sharpe ratios, alphas, betas, Grinblatt-Titman measures, and holding-based/trading-based deltas.

Guotai Junai Securities

Quantitative Analyst - Equities

Beijing, China
06/2016-08/2016

- Worked with senior quantitative researchers to develop predictive and profitable trading models, and employed in-house tools to perform strategy exploration and optimization.
- Evolved trading strategies and methodologies to improve current systems, introducing new and alternative data

- sets into the trading process.
- Explored new alpha signals and designed trading models.

Portland State University, Department of Mathematics
Teaching Assistant

Portland, OR
 09/2014-12/2015

- Taught introductory course in probability and statistics. Led recitation sessions and labs of the classes.

Industrial and Commercial Bank of China (ICBC)
Debt Data Analyst

Beijing, China
 06/2012-08/2012

- Summarized and predicted credit data of ICBC's loan customers, including loan absolute variables distribution, applications volume, defaults volume, grades and subgrades for loans, delinquency breakdown, etc.

Ernst & Young
Summer Internship - Quantitative Financial Risk Analyst

Beijing, China
 07/2011-09/2011

- Summarized 2000+ quarterly reports for companies from Chinese A-Share market,
- Compiled historical performance data in the past 16 quarters of selected funds.
- Evaluated the predictability of cash flow on the performance of funds of interest and that of funds' performance on cash flows, as well as the performance persistency by adopting Carhart 's (1997) model.

RESEARCH EXPERIENCE

Duke University, Fuqua School of Business
Research Assistant for Alon Brav, Wei Jiang & Tao Li

Durham, NC
 03/2017 - 03/2018

- Constructed 3-GBs investment fund dataset from Edgar and Compustat for the paper by professors Brav, Jiang, and Li (2018).
- Examined instrumental variables from 24 leading journal papers and summarized their identification strategies; verified the strongness of the IVs proposed by the professors.
- Investigated the relationships of the variables with various combinations, adopting the proposed IVs'.
- Completed 2 peer-reviewed asset pricing paper reports; reproduced key tables and discussed the robustness of identification strategies of 5 empirical corporate finance papers.

Portland State University, Department of Mathematics
Research Assistant

Portland, OR
 09/2015 - 03/2016

- Reproduced and complemented paper "Gauss Jordan Elimination Methods for the Moore-Penrose Inverse of a Matrix", with applications in image recovery and enhancement.
- Reviewed 21 key papers in generalized inverses, ridge regression, LASSO, PCA, SVD, QR decomposition, and generalized linear models.

SKILLS

Software

- Expert in **R** (ARIMA, GARCH, 2SLS, Nonparametric Statistics, Machine Learning and Bayesian Statistics on *GitHub*: [charlieq3712](https://github.com/charlieq3712))
- Proficient in **MATLAB** (Time Series Analysis projects, ARIMA, GARCH, VAR, VECM)
- **SAS** (Statistical Consulting), **Minitab**
- **Python**, **Oxmetrics** (GARCH), **Excel**, **SQL**

Additional Skills

- Data Mining
- Mathematical Modeling
- Categorical Data Analysis
- Deep Learning
- NLP
- Numerical Analysis
- Sentiment Analysis
- Data Automation
- Multivariate Analysis
- Dynamic Programming
- Applied Probability Model
- Referee Reporting

Membership

AFA | AEA | NBER | NABE | IAQF | ASA | Science