CHAO ZHANG

University of Oxford, the UK
pkuzhchao@gmail.com

EDUCATION

University of Oxford — *Oct 2019 - Sep 2022 (Expected)*
DPhil Student — Clarendon Scholar
Department of Statistics

Peking University — *Sep 2016 - Jul 2019*
Mphil — GPA:91/100, Rank: 1/47
Center for Data Science

Peking University — *Sep 2012 - Jul 2016*
Undergraduate — Major GPA: 3.75/4
Department of Statistics, School of Mathematical Sciences

TECHNICAL STRENGTHS

Programming Languages Python, R, PyTorch, Tensorflow, LaTeX

RESEARCH EXPERIENCE

Horse Racing Betting — Mar 2016 - Jul 2017
Research Assistant — *Peking University*

· Cleaned data crawled from websites
· Built statistical machine learning models to predict the performance for each horse

Prediction of Stock Return — Jul 2017 - Dec 2017
Intern — *A Startup*

· Crawled stock daily trade data from websites
· Created a brand-new deep learning model to analyze the performance for individual stocks
· Achieved better returns than the Benchmark index

Robustness of Machine Learning Model — Feb 2018 - Jun 2018
Intern — *Intel Labs China*

· Explored intrinsic relationships between models' sparsity and adversarial robustness

Asset Pricing via Machine Learning — Sep 2018 - Sep 2019
Research Assistant — *CUHK Business School*

· Investigated asset price premia from the perspective of machine learning techniques across multi-markets

HONORS & AWARDS

- 2013 & 2014, Cyrus Tang Scholarship
- 2015, National Inspirational Scholarship (8%)
- 2016, Outstanding Graduates Awards (20%)
- 2016, Academic Excellence Scholarship (8%)

- 2017 & 2018, National Scholarship (3%[2])
- 2018, NIPS Travel Awards
- 2019 - 2022, Clarendon Scholarship & Cyril and Phillis Long Scholarship

RELEVANT COURSES

Core Courses	**Related Courses**
Mathematical Analysis	Securities Investment
Advanced Algebra	Economics
Mathematical Statistics	C Programming
Statistical Learning	Data Structure
Applied Regression Analysis	Time Series Analysis
Probability Theory	Deep Learning

PUBLISHED PAPERS

CNN-LSTM Neural Network Model for Quantitative Strategy Analysis in Stock Markets
2017
Fintech — *ICONIP 2017*

· Established a brand-new deep learning model to analyze the performance for individual stocks

Sparse DNNs with Improved Adversarial Robustness — 2018
Machine Learning — *NeurIPS 2018*

· Analysed potential relationships between the sparsity and robustness of classifiers to untargeted white-box adversarial attacks, from both theoretical and practical perspectives

WORKING PAPERS

Alpha Go Everywhere: Machine Learning and International Stock Returns — 2019

· We apply machine learning techniques and use stock characteristics to predict the cross-section of stock returns in 33 international markets.

· In most markets, we obtain out-of-sample R2 and Sharpe ratios that are comparable to those in previous studies.

EXTRA-CURRICULAR

- Summer School: France Excellence Summer School: Data Science for Document Analysis and Understanding(partial scholarship) & Machine Learning Course at the Technion(full scholarship), Score: 99/100
- CFA level-1(Passed)
- Volunteer of China Foundation for Poverty Alleviation