XIUQIN XU

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EDUCATION

National University of Singapore (NUS) Singapore
Doctor of Philosophy, Institute of Data Science (IDS) Jan 2018 – Present
- Supervisor: A/P Ying Chen, GPA: 4.6/5.0

National University of Singapore (NUS) Singapore
Master of Science (by research), Department of Statistics and Applied Probability Jan 2017 – Jan 2018
- GPA: 5.0/5.0

Nankai University Tianjin, China
Bachelor of Science Sept 2012 – Jun 2016
- Major in Financial Management, GPA: 92.5/100, rank 1/50
- Minor in Mathematics, GPA: 88.4/100, rank top 5%

RESEARCH INTERESTS AND PUBLICATIONS

Research Interests: deep learning and machine learning for non-stationary time series, high-dimensional data, functional data analysis, latent variable models.

- *Day-ahead high-resolution forecasting of natural gas demand and supply in Germany with a hybrid functional and deep learning model* (with Ying Chen and Thorsten Koch). Applied Energy 262 (2020): 114486.
- *Probabilistic Forecasting for Daily Electricity Loads and Quantiles for Curve-to-Curve Regression* (with Ying Chen, Yannig Goude, Qiwei Yao). Submitted. 2020.
- *Deep switching state space model for non-stationary time* series (with Ying Chen). Working paper. 2021.
- *Deep stochastic volatility model with application to stock returns* (with Ying Chen). Working paper. 2021.

VISITING EXPERIENCES AND TALKS

- Visiting student, School of Business and Economics, Humboldt-Universität zu Berlin, Berlin, Germany, hosted by Professor Stefan Lessmann, Jun 2019 – Jul 2019
- 2018 Joint Conference of IASC-ACS Interim Conference, Beijing, China. *Day-ahead high-resolution forecasting of natural gas demand and supply in Germany with a hybrid model.*

TEACHING

NUS-IDS PhD-Teach-PhD Financial Data Analytics Two-day Workshop (lecturer), NUS, Jan 2020
QF5210 Financial Time Series: Theory and Computation (teaching assistant), NUS, Fall 2020
FE5209 Financial Econometrics (teaching assistant), NUS, Fall 2020

WORK AND PROJECT EXPERIENCE

Three academic-industry cooperation projects on data analysis and mining from 2017 – 2020
- Project with DSO National Laboratories on predicting the core temperature of marching soldiers in order to prevent heart-attack using machine learning methods
- Project with UPS on predicting sales data using statistical and machine learning models
- IDS research project on electrocardiogram classification and visual diagnosis of atrial fibrillation with a proposed DenseECG deep learning model

UOB (Singapore), Quantitative Research Intern May 2017 – Jul 2017
- Built volatility and equity trading algorithms to provide trading signals for traders

Accenture (China), Consulting Intern Apr 2016 – Jul 2016
- Analyzed the operation data of State Grid Tianjin Electric Power Company to improve operation efficiency

AWARDS AND SKILLS

National Scholarship, Nankai University 2013, 2014
Outstanding graduates Award, Nankai University 2016
NUS NGS-IDS Scholarship 2018- 2021
Language skills: Chinese (native), English (proficient)
Programming skills: proficient with Python, R and Matlab