
Zhengtao Cai

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EDUCATION

UNIVERSITY OF EXETER

College of Engineering, Mathematics and Physical Sciences

- Bachelor of Science with honors in Mathematics Class I (equivalent to GPA 4.0)

Devon, UK

2014.10-2017.06

UNIVERSITY OF MICHIGAN

College of Literature, Science, and the Arts

- Master of Science in Quantitative Finance and Risk Management

Michigan, US

2017.09-2019.05

Some Related Courses

Applied Mathematics Modules:

- Computational Finance, Financial Mathematics I & II, Stochastic Process, Macroeconomics, International Finance, The C family (C/C++), Advanced Statistical Modeling (R), Bayesian Statistics, Philosophy and Practice, Vector Calculus and Applications, Systems, Series and Transforms.

Pure Mathematics Modules:

- Complex Analysis, Number Theory, Partial Differential Equations, Linear Algebra, Group, Rings and Fields, Probability and Discrete Mathematics, Advanced Calculus

RESEARCH EXPERIENCE

Predictability of Quasi-biennial Oscillation

Exeter, UK

2016.09-2017.01

- Studied the quasi-biennial oscillation (QBO) by looking into the “Quasi-Binomial generalized linear model (GLM)”, the “Gaussian Process (GP) model” and the “Delay-embedding model” based on data of 60 years.
- Independently developed the Delay-embedding model using R.
- Developed strong teamwork skills through making plans and decisions together and helping each other with the different models.
- Analyzed the effects of QBO in diverse industries, for example hedge fund and insurance, via referring to literatures and discussing with the industry experts; looked for scientific principles of the occurrence of QBO.
- Increased the abilities of gathering, processing and analyzing data as well as presentation.

INTERNSHIP EXPERIENCE

SHANGHAI SUNTIME INFORMATION TECHNOLOGY

Shanghai, China

Member of Product Researching & Developing Department

2016.07-2016.08

- Conducted research on Risk Parity Portfolio by reading related literature and explained the principle of the portfolio to colleagues.
- Gained composure to operational information for financial products.
- Assisted the supervisor to compile business reports.

SKILLS

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- Experience in R, Matlab, C, C++ and Python
 - Interest in using Quantopian to study coding.