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## EDUCATION

**University of Exeter** 2022-2023

- **Degree:** *MSc* in Statistics
- **GPA:** Distinction
- **Modules included:** Statistical Inference (79/100); Bayesian Statistics (67/100); Statistical Computing (71/100); Advanced Topics in Statistics (80/100); Statistical Modelling in Space and Time (71/100), Communicating Data Science (83/100), etc.
- Obtained the highest grade point average in all MSc in Statistics students

**China University of Mining and Technology, Beijing** 2017-2021

- **Degree:** *BSc* in Information and Computing Science
- **GPA:** 76/100
- **Relevant Courses:** Mathematical Statistics (84/100), Time-Series Analysis (81/100), Stochastic Process, Multivariate Statistical Analysis

## RESEARCH INTEREST

- Bayesian statistics
- Machine learning

## PROJECT EXPERIENCE

**Master Project: Using Global Sensitivity Analysis to Understand Deep Learning** Jun.2023-Aug.2023

- **Project goal:** Using uncertainty quantification methods to understand deep learning models, then setting appropriate informative priors for the Bayesian model and obtaining the corresponding posterior estimates.
- **Methods:** Using Global Sensitivity Analysis method called Sobol' indices to the impact of each input factors on output. Then revisiting Sobol' indices in a Bayesian perspective to improve the interpretability of the model in terms of uncertainty quantification. Subsequently, to solve the challenge of training complex Bayesian models, developed an algorithm based on the Approximate Bayesian Computation method to screen out prior samples based on our prior beliefs on Sobol' indices, then sample the posterior of Sobol' indices since the likelihood is intractable.
- **Results:** Developed a method to set informative priors for complex models and obtain corresponding posterior estimates when the likelihood is intractable.
- **Project supervisor:** Prof Peter Challenor, Department of Mathematics and Statistics, University of Exeter
- **Score:** 72/100, evaluated in the defence as "very innovative" and "valuable for further research as a PhD research project"

## COMPETITION

**China Undergraduate Mathematical Contest in Modelling** 2019

*Team Leader*

- **Competition topic:** Modelling the decision-making behavior of taxi drivers picking up passengers at airports and optimizing airport pick-up rules based on the modelling.
- **Methods:** A model of passenger and taxi arrivals at the airport was constructed using queuing theory and based on this, the decision theory was used to describe the driver's decision-making behavior, culminating in the use of computer simulation to optimize the rules for picking up passengers at the airport
- **Result:** First Prize (top 0.75%, A total of 42,992 teams participated)

## PUBLICATION

- A study of news event-driven turtle trading strategy optimization: a textual sentiment approach
  Liangdian Huang, Zigeng Gao, **Xingjian Zhang**, Kaili Cai, Xiaoke Luo, Yan Li.
  China Circulation Economy, 2021, (19):153-156. DOI:10.16834

## INTERNSHIP

**China Telecommunications Company** Jul.2021- Aug.2021

*Data-analysis internship*

- Responsible for customer data collation and entry, screening and categorization, and comparative analysis of data.
- Responsible for analyzing the data statistics of industry customer research projects, and assisted in writing analysis reports

## ADDITIONAL SKILL & INTERTEST

- **Language:** English- proficient; Chinese-native
- **IT:** proficient in R and Python
- **Score:** IELTS 7.0 /9.0