

# JIN CongRen

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## EDUCATION

**University of Southampton** Southampton, United Kingdom

**MSc Statistics** 2021.09 – 2022.12

Relevant courses: Likelihood and Bayesian Inference, Generalised Linear Models, Forecasting, Design of Experiments, Machine Learning.

Awarded Dean's List Award for Outstanding Achievement for dissertation received distinction.

**Xiamen University** Xiamen, China

**BSc Economics** 2016.09 – 2020.06

Relevant courses: Panel Data Analysis, Time Series Analysis, Game Theory, Behavioural Economics, Introduction to Data Science.

Minor in **Mathematical Statistics**

Relevant courses: Computational Data Analysis, Multivariate Statistical Analysis, Data Mining.

## PROJECT EXPERIENCE

**Statistics dissertation: Exploring Sensory Linguistic Data with Unsupervised Learning Methods**

2022.06 – 2022.09

- Use Unsupervised Learning Methods classify linguistics-related data, explore the performance of Unsupervised Learning for high-dimensional data exploration.
- Perform Principal Component Analysis Method using R to reduce the dimensionality of data.
- Perform Clustering Method using R to group the dimensionality-reduced data into a specified number of clusters.
- Compare the clustering results with the groups given in traditional method by original data author.

**Forecasting project: Forecast the Behaviour of Key Environmental Indicators** 2022.03

- Collect several key environmental indicators from official website of UK, select and combine the data using Python.
- Forecast monthly behaviour of all time-series variables until December 2022 using Exponential Smoothing method.
- Compare the results with those obtained by team partners using other methods.

**Economic dissertation: The Influence of the Two-child Policy on the Sex Ratio at Birth and Household Savings Rate** 2020.03 – 2020.06

- Collect the annual data from different statistical yearbooks of all provinces of China, fill missing data using Lagrange polynomial method using Python.
- Perform panel data method using Stata to analyse the relationship between two-child policy and the sex ratio at birth, measure the effect of two-child policy on the household saving rate in society.

**Game theory project: Pricing Model of Two Oligopolies** 2019.05

- Derive and build the mathematical pricing game model based on relevant papers.
- Collect price data of the products of two oligopolies (Nintendo and Sony) and verify the model.

## SPECIALISED SKILLS

**Programming Language:** Python (Pandas, NumPy, Matplotlib, Requests, Django), R (dplyr, ggplot2), Stata, JavaScript, HTML5, SQL, Git

**Technical Tools:** Markdown, Microsoft Office (Word, Excel, PowerPoint), Photoshop

**Language:** Chinese Mandarin (native); English (IELTS 6)