

Dear Admissions Committee,

As an Economics major at Renmin University of China with demonstrated expertise in data science, I am writing to express my strong interest in the MA in Data Science program at Oxford University. My academic preparation and practical experiences in econometric analysis, machine learning applications, and empirical economic research align closely with the program's objectives.

Currently ranked in the top 20% of my cohort with a 3.8 GPA, I have excelled in core economics courses including Microeconomics (A) and Ordinary Differential Equations (A), while building advanced technical competencies through coursework like Machine Learning (A). My interdisciplinary training is further evidenced by three field research projects where I implemented full-cycle economic investigations - from designing survey instruments and conducting household interviews to performing causal inference analysis using Stata and Python.

My technical capabilities are demonstrated through a Kaggle competition project focused on Airbnb housing price forecasting. Key achievements included:

- Conducting spatial cluster analysis of property distributions using DBSCAN algorithms
- Systematically comparing predictive performance of Gradient Boosted Trees, Random Forests, and 3-layer Neural Networks
- Developing an ensemble model (XGBoost + LightGBM) that achieved top 3% ranking among our class

During summer 2024, I led a 5-member research team investigating rural economic development patterns in Zhejiang Province. My contributions encompassed:

- Designing a mixed-methods framework combining survey data (N=450+), in-depth interviews, and DID modeling
- Identifying key determinants of village-level economic growth through panel data analysis

What distinguishes my profile is the ability to bridge economic theory with data-driven solutions. My research on urban housing markets (currently being prepared for journal submission) employs machine learning to analyze price elasticity determinants, demonstrating precisely the interdisciplinary approach Oxford University's MA in Data Science program emphasizes.

I am particularly drawn to Oxford University's strengths in data analysis and theoretical

modeling analysis, which would enable me to have thorough comprehension of economics. I would be honored to contribute my quantitative skills and research experience to your academic community while advancing my capabilities in quantitative analysis.

Thank you for considering my application. I welcome the opportunity to discuss how my background aligns with the MA in Data Science program's objectives.

Sincerely,

Yanjun Qian

Renmin University of China