

# ZHANG Simian

Mobile: (+65) 84560290 | Email: [zhang.simian@u.nus.edu](mailto:zhang.simian@u.nus.edu) | GitHub: <https://simoncodezzz.github.io>

## EDUCATION

### National University of Singapore

Aug 2023 – Present

- PhD Student in Department of Information Systems and Analytics, School of Computing
- Research Interests: Analytical Modelling and Mechanism Design for Online Platforms

### National University of Singapore

Aug 2019 – May 2023

- BSc (Hons) in Data Science and Analytics, Highest Distinction
- Second Major in Economics, Minor in Computer Science
- Awards: Dean's List in AY2021/22 and AY2022/23, Undergraduate Science & Technology Scholarship

## WORK & RESEARCH EXPERIENCES

### Teaching Assistant, NUS Department of Information Systems and Analytics (DISA), Singapore

July 2023 – Present

*Academic department with extensive research in the fields of information systems and data analytics.*

- BT1101 Introduction to Business Analytics, Semester 1, AY2023/24

### Teaching Assistant, NUS Department of Statistics and Data Science (DSDS), Singapore

July 2022 – May 2023

*Academic department with the goals to advance statistical and data science.*

- DSA2101 Essential Data Analytics Tools: Data Visualisation, Semester 1, AY2022/23
- DSA2101 Essential Data Analytics Tools: Data Visualisation, Semester 2, AY2022/23

### Student Research Assistant, NUS Institute of Operations Research (IORA), Singapore

Jan 2022 – June 2023

*Academic institute with research focuses on the optimization, analysis and management of service systems.*

- Supervised by Prof Jussi Keppo from NUS Business School
- Conducted Bayesian structural estimation for comparative statics, processed data from multiple sources in Python and R, and assisted in model diagnostics in multiple projects including contest design and pilot training
- Performed model robustness checking with extensive simulations for herd detection in financial forecasts using large-scale Bayesian structural estimation methods

### Data Engineer Intern, ByteDance, Singapore

May 2021 – July 2021

*Chinese multinational internet technology company with products including Tik Tok and Douyin.*

- Constructed stable data pipelines using Hive, Spark, Kafka to account for costs and revenues of video services such as storage, transcoding, playing and content delivery network (CDN)
- Collaborated with product managers and engineers to optimize existing data pipelines and provide accurate and timely dashboard reporting
- Built forecasting model in Python to predict usage of bandwidth by video services with mean absolute error less than 3% (improved from > 10%) to help budget planning

### Data Analytics Intern, International SOS, Singapore

Dec 2020 – Jan 2021

*World's leading health and security risk services company.*

- Assisted data scientists and data analysts with timely data cleaning, modelling and reporting
- Wrote R scripts to automate data quality checking of more than 1,000,000 entries in data migration project
- Analyzed medical data, applied clustering model with feature engineering to provide operational insights

## LEADERSHIP

### President, NUS 90 Degree Chinese Drama Club

Apr 2020 – Apr 2021

- Led a team of 30 to come out 2 drama productions in Singapore Drama Center that was featured in local media Lianhe Zaobao (联合早报)
- Produced and co-directed a school-themed drama series of 6 episodes
- Administered drama training sessions, recruitments and marketing with an achievement of 100 audiences and \$5000 sponsorship

**EXCO, NUS Active Community Engagement Migrant Committee****Sep 2019 – Apr 2020**

- Collaborated with a team of 5 focusing on Singapore migrant workers' rights, equality and well-beings, engaged to bring close them with students to eliminate misunderstandings
- Planned and executed engagement sessions for NUS students in College of Alice & Peter Tan and foreign domestic workers in Centre for Domestic Employees
- Over 20 foreign domestic workers attended sessions with feedback of appreciation

**ADDITIONAL INFORMATION**

- Programming Tools: Python, R, MATLAB, SQL, Java, Tableau, STATA
- Languages: English(fluent), Chinese(native), Japanese(elementary)