

# CAI YUHAO

## Summary:

Yuhao is a Data Scientist in NCS. He has more than 5 years of experiences in data analysis and machine learning focusing on survey design, data modelling, and data governance. He is proficient with using analytics tools such as R, Python, SPSS, SQL etc. He was working as a course lecturer in NUS, teaching Text Mining, Geospatial Analysis and Statistics Bootcamp Using R and Tableau data visualization course.

## Key skills:

- Strong skilled in Statistical data analysis, Machine Learning and Project Management
- Solid background in financial analysis (**CFA Candidate, Passed Level I, June 2015**) and financial mathematical modelling
- Proficient in **R, Python, SPSS**, Skilled in **Tableau, SQL**, familiar with **C, SAS**

## Educational Background:

- National University of Singapore (NUS) Jul 2013 – Dec 2014  
Master of Mathematics
- Northwest University, China (Distinction) Sept 2009 – Jul 2013  
Bachelor of Mathematics and Applied Mathematics

## Working Experience and Internship:

- **National Computer Systems (NCS)**  
**Data Scientist** May 2019 - Present
  - Worked with CAG on passenger arrival rate prediction to reduce congestion at the arrival immigration counter
- **National University of Singapore, Institute of Systems Science** Aug 2014 – Apr 2019  
**Consultant & Lecturer (Analytics & Intelligent Systems Practice)**
  - Collaborated with Public Transport Council to conducted Public Transport Customer Satisfaction Survey Analysis across all the MRT stations/ bus stops in Singapore, which helped identify the main influential factors towards the customer satisfaction and potentially assisted government to improve commuters' public travelling experience.
  - Led teams in building optimization model and applying machine-learning model on the HP (Hewlett-Packard) production line, which managed to reduce 50% of the manufacturing time.
  - Managed analysis team to analyse the portfolio of more than 400 Singapore Start-up/SME and apply financial predictive model to assess the failure rate of them for National Research Foundation Singapore. This project provided NRF a method for future investment assessment based on quantified data of Start-up/SME.
  - Partnership with LTA, analysed financial incentives on the public's travel behaviour and applied text analysis and sentiment analysis on the Commuter's review by using Twitter API, which helped LTA better understand commuters' sentiment towards the public transport system.
  - Course Lecturer on Statistic Bootcamp in R, Geospatial analysis and Text Analysis.
  - Designed and managed 5 online surveys using Qualtrics that collected data from 1391 people.