

# BINGRUI BIAN – Resume

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<b>Date of Birth</b>	25 <sup>th</sup> November, 2000	<b>Email</b>	bianbingrui@sjtu.edu.cn
<b>Nationality</b>	China		

## Personal Summary

Creative and award-winning researcher with more than 15 undergraduate courses related to Management Science, Data Analysis, and Machine Learning and 4 research experience in such fields. 2 of the research are related to 2 companies' actual operation problems, which are connected to data analysis and supply chain management.

## Education

**2019-2023** Bachelor degree, Major in Business Data Science - Shanghai Jiao Tong University  
**Expected** GPA 3.71

**Curriculums:** Management Science, Operation Management, Calculus, Machine Learning, Optimization in Economics, Regression Analysis, Algorithm Analysis and Design, etc.

*Through this program, I learned both Management Science and Data Science, besides, I took some courses in the school of Mathematical Sciences and Computer Science, like Big Data Analytics and Data Mining. I am interested in and capable of dealing with data-driven management science research topics.*

## Research Experience(Selected)

**Apr. 2021 - Present** Shanghai Jiao Tong University, Antai College of Economics and Management  
*Research Assistant of Prof. Guohua Wan*

Collected data and processed data. Dealt with two actual operation problems and did research related to these companies.

- **SANMI Porridge Shop:** Collected and cleaned data from two main takeaway apps. Developed a ranked customer preference model using Markov chain to portray customer persona. Based on such a model solved the assortment problem, which helped the company to decide which products were supposed to be combined into a combo. Besides, developed a machine learning method to predict daily passenger flow.
- **HUAWEI TECHNOLOGIES CO., LTD.:** Mainly dealt with the base station construction problem. Developed a stochastic model to assign different construction teams to complete different construction tasks, with the constraints of capacity and time. The model is sufficiently fast and can perform best at maximum probability.

**Aug. 2022 - Present** University of British Columbia  
*Mitacs summer research intern - following Prof. Tim Huh & Prof. Joseph Paat*

Research topic: Try to find the relationship between the new definition of complexity and classic operation problems. The definition is the largest determinant of the submatrix of the constraint matrix. The goal is to find the special relationship between the determinant and the parameters of the problems themselves. I am dealing with the two-dimensional cutting stock problem.

## Skills

### ■ Complete proficiency in programming

**Language** - Python, C++, R, Matlab

**Fields** - Optimization, Machine Learning, Reinforcement Learning, Statistics

### ■ Complete proficiency in data processing and analysis

Data Collection, Data Cleaning, Data Visualization and Applying data to research use.

### ■ Advanced quantitative and modeling skills in Management Science field

## Awards

- C-level scholarship of Shanghai Jiao Tong University
- School-level Mathematical Modeling Competition Grand Prize

## Interests

- Badminton, Tennis, Running, Cycling, Sailing
- Travelling
- Creative Writing
- Photography
- Car Mechanics