# Qi-Hang Sun | Curriculum Vitae

 https://github.com/XZhoou   https://xzhoou.top

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## RESEARCH INTERESTS

Transportation network analysis (TNA), Travel demand management (TDM), Pedestrian dynamics

## EDUCATION

**Beihang University**                                                                                           **Beijing, CHN**
*Ph.D. Candidate in Management Science and Engineering; GPA: 3.9/4.0; Rank: 2/51*          *2023.09 - Present*
Doctoral Thesis Topic: *Design and operational optimization of reservation schemes for congestion management*

**Beihang University**                                                                                           **Beijing, CHN**
*B.S. in Biomedical Engineering* (*Minor*)                                                               *2020.09 - 2023.06*

**Beihang University**                                                                                           **Beijing, CHN**
*B.S. in Information Management and Information System*                                          *2019.09 - 2023.06*

## AWARDS & HONORS

- **Joint-training Ph.D. Program Scholarship**, China Scholarship Council, 2025
- **Excellent Student Cadre (Graduate)**, Beihang University, 2025
- **The First Prize Academic Scholarship (Graduate)**, Beihang University, 2024, 2025
- **Merit Student (Graduate)**, Beihang University, 2024
- **Excellent League Member (Graduate)**, Beihang University, 2024, 2025
- **Best Paper Award**, The 5th Frontier Symposium on Traffic Behavior and Transportation Science, 2024
- **Freshmen Scholarship**, Beihang University, 2023
- **Outstanding Undergraduate Graduates**, Beihang University, 2023
- **Merit Student (Undergraduate)**, Beihang University, 2022
- **Model Student of Academic Records**, Beihang University, 2022
- **The Grand Prize Academic Scholarship (Undergraduate)**, Beihang University, 2022
- **The First Prize Discipline Competition Scholarship**, Beihang University, 2022
- **The Second Prize Social Work Scholarship**, Beihang University, 2022
- **Honorable Mention Prize in Mathematical Contest In Modeling (MCM)**, COMAP, 2022
- **The Second Prize in China Undergraduate Mathematical Contest in Modeling**, CUMCM, 2021
- **The Second Prize Academic Scholarship (Undergraduate)**, Beihang University, 2021
- **Outstanding Volunteer**, Beihang University, 2021

## INTERNSHIP EXPERIENCE

**Ministry of Industry and Information Technology**                                              *2022.03-2022.09*
Undergraduate Research Assistant

**International Relations Department**                                                                     *2025.09-2026.01*
Student Assistant

## SKILLS

| | |
|---|---|
| **Programming** | Python, R, Matlab, C, SQL, LaTeX |
| **Languages** | Chinese (*Native*), English (*Conversational*) |
| **Software** | MS Office, IBM SPSS |
| **Sports** | Football, Badminton, Table tennis |

## PUBLICATIONS

- **New insights into bi-directional pedestrian flows with heterogeneous speeds: modeling and analyses**
  *Accepted by The 14th Workshop on Computational Transportation Science (CTS 2023)*
  Qi-Hang Sun, Ren-Yong Guo

- **Morning Peak Reservation Scheme Incorporating Noncompliance Behaviors: Modeling and Analysis**
  *Accepted by The 5th Frontier Symposium on Traffic Behavior and Transportation Science (TBTS 2024)*
  Qi-Hang Sun, Ren-Yong Guo

- **Flexible reservation scheme for urban transportation network management in a multimodal context**
  *Accepted by International Symposium on Multimodal Transportation (ISMT 2025)*
  Qi-Hang Sun, Ren-Yong Guo

- **Reservation scheme for congestion management during morning commute: Considering noncompliance**
  *Submitted to Management Science*
  Qi-Hang Sun, Ren-Yong Guo

- **Flexible Partial Reservation Scheme for Morning Commute Congestion Management Considering Noncompliance**
  *Working paper*
  Qi-Hang Sun, Ren-Yong Guo

- **To violate or comply: strategic speculation in reservation scheme**
  *Working paper*
  Qi-Hang Sun, Ren-Yong Guo

## CONFERENCE TALKS

- **The 14th Workshop on Computational Transportation Science**, Shanghai, 2023.08
  *Oral Presentation*
- **The 5th Frontier Symposium on Traffic Behavior and Transportation Science**, Yichang, 2024.08
  *Oral Presentation*
- **The 16th Workshop on Computational Transportation Science**, Wuhan, 2025.07
  *Oral Presentation*
- **The International Symposium on Multimodal Transportation**, Guangzhou, 2025.11
  *Oral Presentation*

## SELECTED COURSES

- **Ph.D. Student:**
  Advanced Microeconomics Theory (94), Advanced Mathematical Programming (93), Optimization Method (98), Advanced Optimization Theory and Algorithm (92), Urban Economics (95), Advanced Academic English Writing (95)

- **Undergraduate:**
  Information Systems Analysis and Design (95), Program Designing (92), Production and Operations Management (94), Artificial Intelligence and Deep Learning (97), Decision-Making and Business Intelligence Systems (96), Large-Scale Database Application Experiment (96)