Yongjian Huang （黄永健）

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Objectives

A young, motivated, and self-driven researcher seeking opportunities to contribute to cutting-edge research in operations research and optimization, with a strong focus on real decision-making problems, artificial intelligence and computational modeling.

Research Interest: Operations research, assignment problems, scheduling, and resource allocation, optimization algorithms, artificial intelligence, machine learning, large language models

Education

September 2023 – March 2026, Shanghai University

Management Science and Engineering (Big Data and Business Artificial Intelligence track), Master, Supervisor: Prof. Jian Zhou, GPA: 3.7/4, Average score: 86.47/100

September 2019 – July 2023, University of South China

Business Administration (Enterprise Management track),
Bachelor, Supervisor: Prof. Tian Xie, GPA: 3.33/5, Average score: 83.87/100

Work Exp.

August 2024 – September 2025 Chinese Language Volunteer Teacher, Confucius Institute at University of Bahrain in Bahrain

- **Has 1 year** of international Chinese teaching experience.
- Effectively communicates with students using basic **Arabic** and **English.**
- Successfully organized and hosted the **First Arabian Region Chinese Education Symposium 2024**.

November 2021 – June 2023, Student Party Building Committee, Senior Member, Deputy Director, Director

- Demonstrated **strong hands-on skills** in problem-solving and process innovation.

- Developed Python-based **office automation software** to streamline task.
- Received recognition from the **college chairman and student advisors.**

Academic Exp.

Presided over the 2021 National College Student Innovation and Entrepreneurship Training Program Project (2021-2023), successfully concluded. *(Principal Investigator)*

- Participated in an undergraduate supervisor-led project funded by the National Natural Science Foundation of China, focusing on the *Cross-border parallel evolution mechanism and control strategies of nuclear-related network public opinion*, successfully concluded.
- Led a **national-level research project,** *Intelligent decision support system for student party-building organizations*.
- Successfully applied for **seven computer software copyrights**, including one for an *intelligent decision support system for student party-building work*, all of which have been implemented in actual student work at the undergraduate college.

Participated in the 2022 National College Student Innovation and Entrepreneurship Training Program Project (2022-2024), successfully concluded. *(Core Team Member)*

- Conducted a **national-level research project**, I*nvestigation and research on the construction of an industrial ecosystem based on e-commerce for poverty alleviation in the post-pandemic era, using Tuliu Group's digital initiatives for rural revitalization as a case study*.
- Led a project that won the **second prize** in the 9th "Challenge Cup" Extracurricular Academic Science and Technology Works Competition at the University of South China. *(Principal Investigator)*

Publications

[1] Xie, T.*, **Huang, Y. J.***, & Chen, W. F. **(2025)**. Multi-dimensional assignment model and its algorithm for multi-features decision-making problems. ***Expert Systems with Applications***, 270, 126369. DOI: 10.1016/j.eswa.2024.126369 (**Q1 TOP SCI**)

[2] **Huang, Y. J.**, Huo, S.*, & Dong, Y. **(2025)**. Exploring the role of AI in smart grids: a 20-year bibliometric-based overview. ***International Journal of General Systems***, 1–32. DOI: 10.1080/03081079.2025.2547187 **(Q2 SCI)**

[3] **Huang Y. J .**, Qader M. R., Zhou J*, Zhang X. **(2025)**. Prediction and path planning framework of X city's carbon emissions based on long short-term memory network model. ***Polish Journal of Environmental Studies***. Online first. DOI: 10.15244/pjoes/199609

[4] Xie, T., Dai, G. Y., Chen, W. F., Yang, C. P., **Huang, Y. J.**, & Wei, Y. Y.* **(2025)**. Pandemic Triggered Emergency Supply Chain Management Innovations: A Scientometric Analysis Based on Bibliometrics and Dynamic Topic Models. Disaster Medicine and Public Health Preparedness, 19, e88. DOI:10.1017/dmp.2025.88

[5] Who Holds the Reins of Power? – Platforms Challenging Traditional Offline Transactions (Working Papers)

[6] Two-phase optimization methods for project scheduling problem with uncertain activity durations (Working Papers)

[7] Timely and equitably allocation of medical resources considering secondary mortality under public health emergency (Working Papers)

Honors

[1] Apr 2022 – May 2023 Obtained **7 software copyrights**, including the *Smart Decision Support System for Student Party Building in Universities*, among others.

[2] Dec 2023 – Second Prize (National Level), 20th "Huawei Cup" China Postgraduate **Mathematical** Contest in Modeling (Team Leader)

[3] May 2021 – Third Prize (National Level), 11th "CP Group Cup" National College Student **Market Research & Analysis** Competition (Core Leader)

[4] Sep 2021 – Third Prize (Provincial Level), 7th Hunan Province **"Internet+"** College Student Innovation & Entrepreneurship Competition (Deputy Leader)

[5] Apr 2021 – Second Prize (Provincial Level), 7th National College Student **Engineering Training** Comprehensive Ability Competition (Core Leader)

[6] May 2023 – Hunan Province 2023 Outstanding Graduates in **Innovation and Entrepreneurship**

[7] Apr 2024 – President's e-Learning Innovation Award, University of Bahrain, Bahrain

Training

- **Language:** English (IELTS Overall Band Score: 6.5); Mandarin (National Proficiency Test of Putonghua level 2 grade B); Arabic; Cantonese; Teochew
- **Technical:** National Computer Rank Examination Level 2 (NCRE, MS Office)

Skills

- **Python:** 6 years of experience; proficient in building operations research models and developing solution algorithms.
- **Web Scraping**: Experienced with requests, BeautifulSoup (bs4), and Scrapy for large-scale data collection.
- **Automated Data Processing**: Skilled in using Python for big data batch processing and automated workflows.
- **Data Analysis & Visualization**: Proficient in Pandas, NumPy, and Matplotlib for data analysis and creating high-quality visualizations.
- **Computer Vision & Deep Learning**: Experienced with OpenCV, YOLO, PyTorch, and TensorFlow for face recognition, object detection, etc.
- **Statistical Analysis**: Skilled in using SPSS and EViews for statistical analysis and econometric modeling
- **Bibliometric Analysis**: Proficient in conducting bibliometric studies using VOSviewer and CiteSpace for literature mapping, citation networks, and research trend visualization.
- **Scientific Visualization**: Proficient in Visio for diagramming and Matplotlib for creating publication-quality charts.
- **Office & Typesetting Tools**: Skilled in LaTeX, CorelDRAW, Word, Excel, and PowerPoint
- **Design & Media**: Experienced with Photoshop (PS) for image editing and Premiere (PR) for video production

Self- Rec.

Who Am I: A Long-Term-Oriented Doer

I define myself as an optimistic and resilient individual who thrives on challenges and long-term goals. Under the continuous guidance of **Prof. Tian Xie**, I spent four years from my undergraduate studies to complete and publish my first **Top SCI paper**. This journey strengthened my belief that meaningful research requires patience, persistence, and the courage to iterate repeatedly. For me, progress in science comes not from short bursts of effort but from sustained refinement and long-term dedication.

When Curiosity Led to Idea: From Concepts to Publications

My research journey began in **2020** during my sophomore year, when I first became involved in assignment problem solving under the mentorship of **Prof. Tian Xie**. Since then, I have navigated the entire research pipeline — from formulating research questions and identifying knowledge gaps, to designing experiments, writing manuscripts, submitting to journals, and responding to reviewer feedback. I have learned how to

transform raw results into clear visualizations and compelling narratives, participated in the proposal preparation of National Natural Science Foundation of China (NSFC), MOE (Ministry of Education) Humanities and Social Sciences Research Project (Shanghai), and Shanghai Philosophy and Social Science Planning Project, and conducted peer reviews for SCI-indexed journals (Soft Computing etc.).

How I Conduct Research: Problem-Driven, Code-Enhanced

My research philosophy combines **problem-orientation** with **data-driven solutions**. During my undergraduate years, I developed a habit of identifying inefficiencies and designing highly efficient solutions — a mindset that now drives my academic work. In my graduate studies, I integrate Python, optimization algorithms, and computational modeling to tackle complex issues such as scheduling, and resource allocation. This ability to transform real-world scenarios into rigorous research questions allows me to consistently generate innovative insights across multiple domains.

Where I Grew: Cross-Cultural Experience in Bahrain

Thanks to the support of **Prof. Jian Zhou**, I spent a year living, studying and working at the *Confucius Institute of University of Bahrain*, where I managed to continue my research while expanding my experience in international education. Engaging with **Arabic-speaking students** and local institutions sharpened my ability to translate abstract methods into *practical solutions*, while also broadening my perspective on how institutional, cultural, and data environments influence problem-solving strategies. This experience nurtured an increasingly global perspective, allowing me to think beyond a single context and to identify insights from cross-regional comparisons.

What I Bring: Creativity and "Find-and-Fix" Capability

I bring a unique blend of **creativity** and **practical problem-solving skills**. Whether automating data collection pipelines, streamlining workflows, or debugging processes, I continually refine systems through small, high-impact improvements. My goal is to ensure that my research not only advances theory but also generates solutions that work in real-world contexts. While I respect foundational theories, I am deeply passionate about applying them to address complex practical problems — because **I believe this is where research creates its greatest value**.