

# JIARUI HE

Email hejiarui202410@outlook.com | Wechat Hjrterry63464089  
| WhatsApp +852 63464089



## EDUCATION

<b>National University of Singapore</b>	Singapore
MSc Building Performance & Sustainability	2025.08 – Present
<ul style="list-style-type: none"><li>Dissertation: BIM-IoT Enabled Digital Twin for Real-Time Analytics and Predictive Control of Building Energy Systems, BIM to BEM</li><li>Mainly research and work on: Building Simulation and Operation system, Thermal Comfort, Fluid Modelling(CFD)</li></ul>	
<b>Hong Kong Polytechnic University</b>	Hong Kong, China
BSc (HONS) Building Engineering & Management	2021.08 – 2025.07
<ul style="list-style-type: none"><li>Second Class Honours (Upper Division)</li><li>Dissertation on Wearable Sensor from Construction: : "Analyzing Interaction Forces and Discomfort in Exoskeletons for Construction Workers: A Study on Enhancing Comfort "</li></ul>	

## RESEARCH EXPERIENCES

<b>National University of Singapore, BIOR LAB</b>	Singapore
Group Member, master student working on Digital Twin and Building Energy Control	2025.08 – Present
<b>Hong Kong Polytechnic University</b>	Hong Kong, China
Research Assistant, “ Automation Greening Building Assessment for the Interior Spaces of Existing Building through Scan-to-BIM and Plug-in Software Approach ”(Prof. Albert PC Chan)	2024.08 – 2025.03
<ul style="list-style-type: none"><li>Reviewing the green building certification tool and supporting the development of BIM model structure for interior space assessments</li><li>Developed and collected IoT data analysis to BIM model</li><li>Co-authored academic papers for journal publications</li></ul>	

## WORK EXPERIENCES

<b>China Construction Industrial and Energy Engineering Group</b>	Nanjing, China
Intern, Quantity Surveyor	2023.12 – 2024.02
<ul style="list-style-type: none"><li>Supported budgeting and cost management, preparing BOQ (Bill of Quantities) for materials</li><li>Conducted quantity take-off based on CAD/BIM drawings</li><li>Collaborated with suppliers to gather up-to-date market prices for construction materials, contributing to accurate cost estimation based on BQs</li></ul>	
<b>Enjoy Town Real Estate Company</b>	Hangzhou, China
Intern, Consultancy Department	2023.06 – 2023.07
<ul style="list-style-type: none"><li>Assisted in designing community development plans and solutions for local government requirements</li><li>Conducted field surveys for urban renewal interior projects in Hangzhou, planning activity routes in residential interior spaces</li><li>Hosted foreign delegations, presenting future community development strategies</li></ul>	

## COMPETITIONS

<b>2022 Qianhai-Guangdong-Hong Kong-Macao-Taiwan Youth Innovation and Entrepreneurship Competition</b>
Special 1 <sup>st</sup> Golden Award   Technology & Sustainability Track (Prof. Ni Meng)
<ul style="list-style-type: none"><li>Core team member of "Zinc Air Battery", a sustainable energy project as technician consultant for the battery material performance and property.</li></ul>
<b>2022 – 2023 Hong Kong Polytechnic University - Micro Fund for College Students Entrepreneurship</b>
The Hong Kong Polytechnic University (PolyU) Finalist "Energy Group"
<ul style="list-style-type: none"><li>Collaborated with 4 other students to create a business proposal; Participated in the 5-week Lean Launchpad Program for Market Validation; Shortlisted for the final startup panel and got a \$100,000 HKD startup funding slot.</li></ul>

## SKILLS

**Languages:** Native English and Mandarin | German (B2 level)  
**Skills:** Revit | MATLAB | Python | Ansys Fluent | DesignBuilder | SPSS | Visio | R Studio | Microsoft Office | MQTT  
**Strengths:** Technical bilingualism | High problem-solving skills | Cross-cultural collaboration  
**Hobbies:** Photography/Filming Director | Equestrian | Volleyball