

# Liu Wangwei

☎ +65 87318384    ✉ lww2488@163.com    📍 Singapore

## EDUCATION

---

<b>Shanghai Jiao Tong University</b>	Sep 2021 - Mar 2024
Master in Civil Engineering, GPA 3.94/4.0 (1/67)	Shanghai
<i>Sustainable Construction (A), Advanced Theory of Concrete Structure (A+), Structural Design for Fire (A+), English for Academic Purposes (A)</i>	
<b>Shanghai Jiao Tong University</b>	Sep 2017 - Jun 2021
Bachelor in Civil Engineering, Grade 87.68/100, GPA 3.75/4.3 (3/46)	Shanghai
<i>Undergraduate Thesis (A+), C++ Programming (A), Course Design on Concrete Structure (A+), Structural Mechanics (A), Materials Mechanics (A), Fluid Mechanics (A+)</i>	

## RESEARCH EXPERIENCE

---

<b>Fire-Damaged Columns Repaired with TRE Composite System</b>	Jan 2021 - Mar 2024
Conducted experimental and theoretical research to investigate the confinement mechanism and design method of the TRE composite system for strengthening fire-damaged concrete columns	Shanghai
<i>Peer-Reviewed Papers (Citation 18)</i>	

- Liu WW**, Ouyang LJ, Gao WY, et al. Repair of fire-damaged RC square columns with CFRP textile-reinforced ECC matrix [J]. *Engineering Structures (JCR Q1)*, 2023, 292: 116530.
- Liu WW**, Wang TC, Liang J, et al. Stress-strain models for FRP-confined thermally damaged concrete [J]. *Journal of Building Engineering (JCR Q1)*, 2024, 82: 108265.
- Wang TC, Gao WY, **Liu WW**, et al. Prediction of residual bond strengths between corroded steel bars and concrete after exposure to high temperatures [J]. *Engineering Fracture Mechanics (JCR Q1)*, 2023, 283: 109213.
- Li LH, Yang J, **Liu WW**, et al. Overview of the application of quantitative backscattered electron (QBSE) image analysis to characterize the cement-based materials [J]. *Construction and Building Materials (JCR Q1)*, 2023, 406: 133332.

### *Conference Paper*

- Liu WW**, Wang TC, Liang J, et al. Analysis-oriented stress-strain model for fiber-reinforced polymer (FRP)-confined thermally damaged concrete [C]//The 15th International Symposium on Fibre-Reinforced Polymers for Reinforced Concrete Structures (FRPRCS-15) and The 8th Asia-Pacific Conference on Fiber Reinforced Polymers in Structures (APFIS-2022), 2022.12, Shenzhen, China. (*EI Conference, Invited Presentation*)

### *Software Copyright*

- Gao WY, Liang J, Wang TC, **Liu WW**, Xie WJ. ABAQUS-based analysis software for axial compression behavior of fire-damaged RC columns strengthened with FRP V1.0, Register No. 2024SR0001613.

## PROFESSIONAL EXPERIENCE

---

<b>CSCEC Singapore</b>	Jun 2024 - Present
Site Engineer (Full Time)	Singapore
• Managed and supervised construction activities for a residential project ( <i>Grand Dunman</i> ) in Singapore, ensuring adherence to design specifications and project timelines.	

- Coordinated daily site operations, leading a team of 20+ workers and liaising with architects, engineers, and clients to ensure smooth project progress

## ARUP Shanghai

Jul 2021 - Oct 2021

Structural Engineer (Intern)

Shanghai

- Contributed to the consulting projects of Hangzhou Xiaoshan and Hongkong Land. Quickly acquired foundational knowledge in design principles and engineering software usage, applying it to tasks such as pile type selection, layout, and cost estimation

## TEACHING EXPERIENCE

---

### Shanghai Higher Education Key Teaching Reform Project

Dec 2022 - Jan 2024

Student Assistant

Shanghai

- Facilitated the reform work conducted by the Department of Civil Engineering, SJTU, where a series of useful educational initiatives were implemented on new educational concepts, innovative training methodologies, and new course modules.
- Based on the reform experience, wrote a peer-reviewed paper in the field of higher education: Gao WY, **Liu WW**. Civil engineering curriculum reform for the new engineering paradigm and the “Belt and Road” initiative [J]. Education and Teaching Forum (in Chinese, accepted).

### Towards Sustainable and Resilient Cities, SJTU Summer School

Jun 2022 - Jul 2022

Teaching Assistant

Shanghai

- Managed communication and software training for 26 international students enrolled in the course. Designed and hosted lectures by five speakers from academia and industry. Received high praise from the teacher (Associate Dean) - "*The most outstanding teaching assistant I've ever had.*"

## HONORS & AWARDS

---

China National Scholarship (Top 0.2%)	Dec 2023
Outstanding Graduate of Shanghai (Top 5%)	Mar 2024
Excellent Undergraduate Thesis (Top 5%)	Jun 2021
Master's Academic Scholarship (First-Class)	Dec 2023
Regal Lloyds Scholarship (Top 1%, equivalent to National Scholarship in terms of amount)	Dec 2020
Outstanding Graduate of Shanghai Jiao Tong University (Top 8%)	Jun 2021
Xu Mingbiao Memorial Scholarship (First-Class)	Dec 2019
SJTUer Global Competence English Public Speaking Competition (Second Prize)	Dec 2021
Academic English Speech Contest of SJTU (Third Prize)	Nov 2021
Application Design of Fiber Composite Materials in Civil Engineering (Excellence Prize)	Jul 2023

## MISCELLANEOUS

---

- Skills:** AutoCAD, ABAQUS, PowerPoint (Providing Professional Polishing Service), C++, MATLAB (Data Analysis & Visualization), Word, Excel, Video Editing
- Languages:** Mandarin, English (TOEFL-107)
- Hobbies:** Singing (Members of SJTU Choir), Podcast, Table Tennis, Badminton, Running