

# Zirui Zhang

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## EDUCATION

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**Haifa University**, Haifa, Israel

**Oct. 2022-Aug. 2024**

Master of Science in Marine Geosciences by thesis, LEON H .Charney School

Grade: 90.23/100

Supervisor: Dr.Regina Katsman

Funded by Charney fellowship and Hartter excellent scholarship

**China Three Gorges University**, Hubei, China

**Sep. 2018-July 2022**

Bachelor of Civil Engineering

GPA:84.8/ 100 The highest ranking: 19/200

Outstanding graduate from CTGU

## RESEARCH EXPERIENCE

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**Undergraduate Scientific and Technological Innovation Project, China Three Gorges University**

**Project:** “*Study on the mechanism of fracture visualization grouting diffusion and magnetic fluid infiltration*”, **2018-2021**

**Research Asistant and Leader of undergraduate**

- Proposed a Device and Method of Visualization Fracture seepage Simulation using Magnetic fluid
- Proposed An experimental device and method for Measuring the Opening of a certain point of rock fissure and calibrating the permeability Pressure value using magnetic fluid
- Assisted professor in monograph editing
- Participated in the design and implementation of magnetic fluid seepage test on rock fissure

## INTERNSHIP EXPERIENCES

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**Guangxi Beibu Gulf Investment Group, China**

**July 2021 --Sept.2021**

**Engineering management, Engineering department**

- Project bidding management
- Engineering construction coordination
- Shallow foundation pit excavation management
- Project schedule management;

**CSCEC Oriental Decoration Research and Design Institute, China**

**Dec 2021--March 2022**

**BIM R&D Engineer**

- Architectural and building model design
- Developing building information model software by python and c#
- Constructing building information model lightweight platform

## ACTIVITIES & AWARDS

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- **Charney school fellowship** during 2022 to 2024 at Haifa university
- **Excellent scholarship from Hatt** during 2022 to 2024 at Haifa university
- **Israel China Friendship Society Excellent Student Scholarship** in 2022
- **First-class** (5% in the grade) outstanding student scholarship of CTGU in the first and second semester respectively during 2018 to 2020
- **Second-class**(10% in the grade) outstanding student scholarship of CTGU in the fifth and sixth semester respectively during 2020 to 2022
- **Meritorious Winner**(Top5% Internationally) of *America Mathematical Contest In Modeling* in 2020
- **Second prize**( Top 10% in the China)of *China National Structural Design Information Technology Competition* for College Students in 2021
- **Second prize**( 10% in the China) of *Higher Education Cup National College Students Mathematical Modeling* Hubei Contest in 2019

## **PAPER & PUBLICATION**

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### **Patent**

- Liu Jie, **Zhang Zirui**, LI Zhao, SHI Qian, Tang Hongyu, Wang Shuyu, Gao Sufang, Sun Tao, LUO Zhiqiang, Xie Xiaokang, Li Hongya, CAI Xianchan, Shen Haowei. *Experimental device and method for measuring opening degree of certain point of rock fracture and calibrating osmotic pressure value by using magnetic fluid* [P]. Hubei Province: CN110763604B,2022-02-08.
- Liu Jie, Li Zhao, **Zhang Zirui**, WANG Shuyu, GAO Sufang, Sun Tao, Tang Hongyu, SHI Qian, Li Zheng, CAI Xiancan, SHEN Haowei, LI Yuanhang, HE Zhuowen, Wu Zijin, WU Jianghong, ZHAO Min, Wu Hao. *Device and Method of Visualization Fracture seepage Simulation using Magnetic fluid* [P]. Hubei Province: CN110296928A,2019- 10-01.
- Liu Jie, GUO Jianxiang, JIANG Pan, **Zhang Zirui**, Liu Zhongkai, Tang Hongyu, Chen Ziyue, Wang Yansong, Song Rui, Sun Rongqi, Li Yunzhou, SHI Qian, Yang Haoyu, XIE Xiaokang, Li Hongya. *The invention relates to a test device and method for simulating anchor drawing of constant resistance soil in deep soil layer.*[P] Hubei Province: CN112730055A,2021-04-30.

### **Journal**

Liu Jie, Li Zhao, Yang Yunan, **Zhang Zirui**, Tang Hongyu, Gao Jin, Shen Jian. *Rockfracture seepage device feasibility and visualization experimental study* [J]. *Rock and soil mechanics*, 2020, 9 ( 12 ) : 4127-4136 + 4144. DOI: 10. 16285 / sm j.r. 2019. 1482.(in Chinese)

### **Undergraduate graduated design**

- Optimization design of residential building pile foundation based on neural network learning. (Grade A)

### **Master Thesis**

- Permeability evolution of gas hydrate bearing sediments affected by hydrate formation morphology and precipitation pattern: insights from the pore scale modelling.

## **LANGUAGES & SKILLS**

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### **Computer Skills:**

- Microsoft Office
- Matlab 、 python 、 C++
- Origin 、 Spss
- AutoCAD 、 Rhinoceros 、 PKPM 、 comsol
- Html 、 csc 、 javascript
- Adobe Premiere Pro 、 Photoshop

### **SELF ASSESSMENT**

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Organized and dependable candidate successful at managing multiple priorities with a positive attitude. Willingness to take on added responsibilities to meet team goals. I am proficient in design and analysis modeling using the current design and analysis finite-element programs and I am capable to learn and master other programs. Easy going by nature and able to get along with both work colleagues and senior managers.