

## Zirui Zhang

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### EDUCATION

**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

### RESEARCH EXPERIENCE

**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

**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

- **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. *An experimental device and method for Measuring the Opening of a certain point of rockfissure and calibrating the permeability Pressure value using magneticfluid* [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. (in Chinese)

### **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.