



## Ruoyu Feng

**Nationality:** Chinese **Date of birth:** 27/05/1996 **Gender:** Male

**Phone number:** (+86) 15275170320 **Email address:** [ruoyu.ryu@gmail.com](mailto:ruoyu.ryu@gmail.com)

**Work:** No.17923 Jingshi Road, Qianfo Mountain Campus of Shandong University  
School of Civil Engineering, 250061 Jinan City (China)

**Home:** Shizhong District, HuaRunZiYunFu 23-2-1002, 250003 Jinan City (China)

### WORK EXPERIENCE

#### Research Assistant

*Department of Engineering Mechanics, School of Civil Engineering, Shandong University* [ 01/08/2023 – Current ]

City: Jinan City

Country: China

Developing a game-based virtual reality software, to visualize musculoskeletal models for surgical education.

### EDUCATION AND TRAINING

#### PhD in Mechanics

*Department of Engineering Mechanics, School of Aerospace Engineering, Tsinghua University* [ 01/09/2018 – 21/06/2023 ]

City: Beijing

Country: China

#### Bachelor in Engineering Mechanics

*Department of Engineering Mechanics, School of Civil Engineering, Shandong University* [ 01/09/2014 – 30/06/2018 ]

City: Jinan City

Country: China

### LANGUAGE SKILLS

Mother tongue(s): **Chinese**

Other language(s):

#### English

**LISTENING** C1 **READING** C2 **WRITING** C1

**SPOKEN PRODUCTION** B2 **SPOKEN INTERACTION** C1

#### German

**LISTENING** A1 **READING** A1 **WRITING** A1

**SPOKEN PRODUCTION** A1 **SPOKEN INTERACTION** A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

### DIGITAL SKILLS

Unreal Engine / AutoCad 2D -3D / Microsoft Office (Outlook, Excel, Word, PowerPoint) / Corel ( CorelDRAW, Corel VideoStudio ) / Matlab

## HONOURS AND AWARDS

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### **Second prize scholarship for comprehensive performance**

Tsinghua University [ 11/2022 ]

### **Scholarship for character development**

Tsinghua University [ 11/2022 ]

### **'Xu Zhilun' national award for outstanding students in mechanics**

Education Work Committee of the Chinese Society of Theoretical and Applied Mechanics [ 09/2018 ]

### **First prize in national innovation and entrepreneurship training program for university students**

Shandong University [ 06/2017 ]

### **First prize scholarship for outstanding students**

Shandong University [ 12/2015 ]

## PUBLICATIONS

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### **A virtual reality platform for musculoskeletal model visualization**

[2024]

RY Feng, SW Wang, and Y Chen, Chinese Patent, submitted.

A software copyright patent was also submitted. A paper manuscript has been written. The video in the link shows one of the model.

Link: <https://www.youtube.com/watch?v=Hfam03tQmEg>

### **Magworm: a biomimetic magnet embedded worm-like soft robot**

[2021]

HQ Niu, RY Feng, and YW Xie, et al., Soft Robotics, 8, pp. 507-518, 2021.

This paper presents a worm-like crawling robot. The video in the link shows its function of cleaning pipes.

Link: <https://youtu.be/AhqVcrhQqrA?si=vBDrqAN3fKPQYSKq>

### **Practice of soft robotics and innovation education**

[2020]

RY Feng, L Chen, and HZ Zhang, et al., Mechanics in Engineering, 42, pp. 347-350, 2020.

This Chinese paper summarizes the teaching experience as a teaching assistant, when I led undergraduate students to learn about soft robotics.

### **Kinetic and dynamic modeling of single actuator wave-like robot**

[2019]

RY Feng, P Zhang, and JF Li, et al., Robotica, 37, pp. 1971-1986, 2019.

This paper presents the modeling of a car-like crawling robot. The video in the link shows its crawling.

Link: [https://youtu.be/Co3RpMakEhs?si=LkdGST1fIPRdk\\_h7](https://youtu.be/Co3RpMakEhs?si=LkdGST1fIPRdk_h7)

### **Dynamic response of post-tensioned rocking wall-moment frames under near-fault ground excitation**

[2018]

RY Feng, Y Chen, and CZ Cui, Earthquakes and Structures, 15, pp. 243-251, 2018.

### **Stress analysis of prestressed concrete cylinder pipe with plastic coated steel liner**

[2016]

RY Feng, Y Chen, and HP Lei, Mechanics in Engineering, 38, pp. 158-163, 2016.

This Chinese paper studies a novel water pipe. The video in the link shows its manufacture.

Link: <https://youtu.be/B46bwViwns?si=tEoHyUfk88oQaoJY>

## **VOLUNTEERING**

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### **Teaching support for Yingxiu primary school**

[ Jinan City, Shandong, China, 10/2014 – 07/2015 ]

We taught the physical education class for a village primary school.

## **HOBBIES AND INTERESTS**

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### **Hiking and Trekking**

Member of Mountain & Nature Club of Tsinghua University. The video in the link shows the summit of the 5396-m Haba snow mountain.

Link: [https://youtu.be/zOvrZP72\\_GM?si=KiX2LfYBokfcZoCu](https://youtu.be/zOvrZP72_GM?si=KiX2LfYBokfcZoCu)

### **Playing football**

Central defender in our departments' team, joined official matches in Tsinghua and Shandong University.