

# Yang Yang

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🌐 Personal Website    in LinkedIn    📄 Google Scholar

## Education

### University of Southern California

*PhD in Mechanical Engineering*

*Advisor: [Hangbo Zhao](#)*

*Los Angeles, United States*

*Aug 2025 – Present*

### Sichuan University

*B.Eng in Mechanics with Honors*

*Chengdu, China*

*Sep 2021 – Jun 2025*

- GPA: 3.83/4.0 (90.31/100)
- Courses: Theoretical Mechanics, Material Mechanics, Mathematical Methods in Engineering, Continuum Mechanics, Structural Mechanics, Fluid Mechanics, Computational Mechanics, Experimental Mechanics, Vibration Mechanics

## Research Interests

My research interests are in Soft Robotics, Sensors, and Mechanics. They encompass tactile sensing, computational mechanics, and multi-model sensors. I am particularly interested in the design of new types of sensors and their application in soft robotics.

## Experience

### The Chinese University of Hong Kong

*Research Assistant, advised by [Hongliang Ren](#)*

*Hong Kong SAR, China*

*Oct 2024 – May 2025*

### Tsinghua University

*Summer Research Intern, advised by [Wenbo Ding](#)*

*Shenzhen, China*

*Jun 2024 – Aug 2024*

### Sichuan University

*Teaching Assistant, advised by [Hong Zhang](#)*

*Chengdu, China*

*Feb 2024 – Jun 2024*

### Shanghai Jiao Tong University

*Summer Research Intern, advised by [Daolin Ma](#)*

*Shanghai, China*

*Jun 2023 – Aug 2023*

## Honors and Awards

USC Viterbi School of Engineering Graduate School Fellowship	2025
Top 100 Undergraduate Students of Sichuan University	2025
Second Prize of Academic Scholarship at Sichuan University	2024
First Prize of Sichuan Province Mechanics Competition Individual Race	2023
First Prize of Sichuan Province Mechanics Competition Group Race (Leader)	2023
First Prize of Academic Scholarship at Sichuan University	2023
Outstanding Students of Sichuan University	2023

## Publications

### Conformable Vision-Based Tactile Sensor with Enhanced Soft Elastomer Design for Palpating Irregular Anatomical Surfaces

**Yang Yang**, Tao Zhang, Yupeng Wang, Wenchao Yue, Tangyou Liu, Hongliang Ren

International Conference on Biomimetic Intelligence and Robotics (ICBIR) 2025, Accepted

### **Vitire: A Bimodel Visuotactile Tire with High-Resolution Sensing Capability**

Shoujie Li<sup>†</sup>, Jianle Xu<sup>†</sup>, Tong Wu, **Yang Yang**, Yanbo Chen, Xueqian Wang, Wenbo Ding, Xiao-ping Zhang  
IEEE Transactions on Mechatronics, [\[Paper\]](#)

### **Three-dimension Tip Force Perception and Axial Contact Location Identification for Flexible Endoscopes using Tissue-compliant Soft Distal Attachment Cap Sensors**

Tao Zhang<sup>†</sup>, **Yang Yang**<sup>†</sup>, Yang Yang, Huxin Gao, Jiewen Lai, Hongliang Ren  
International Conference on Robotics and Automation (ICRA 2025), [\[Paper\]](#)

### **Machine Learning-and Finite Element-Based Temperature-and Rate-Dependent Plasticity Model: Application to the Tensile Behavior**

Bo Zhang, **Yang Yang**, Hao Wu, Yida Zhang, Quanyi Wang, Hong Zhang, Yongjie Liu, Qingyuan Wang  
Journal of Materials Engineering and Performance, [\[Paper\]](#)

### **A deep learning approach for low-cycle fatigue life prediction under thermal-mechanical loading based on a novel neural network model**

**Yang Yang**, Bo Zhang, Hao Wu, Yida Zhang, Hong Zhang, Yongjie Liu, Qingyuan Wang  
Engineering Fracture Mechanics, [\[Paper\]](#)

## **Skills**

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Programming: C++, Python (Pytorch)

Platform/System: Finite Element Method, SolidWorks, MATLAB, Ubuntu, Linux, VS Code, Gazebo, ROS

Languages: Mandarin (Native), English (Fluent)