

# Hongyi Jing

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## EDUCATION

**University of Southern California (USC), Los Angeles, United States**

September 2024 - June 2026

*Master of Science, USC Viterbi School of Engineering*

**Major:** Computer Science

**Huazhong University of Science and Technology (HUST), Wuhan, China**

September 2020 - June 2024

*Bachelor of Science, School of Artificial Intelligence and Automation*

**Major:** Artificial Intelligence; **Cumulative GPA:** 3.90/4.0

## PUBLICATIONS (\* INDICATES EQUAL CONTRIBUTION.)

- Zhenyu Zhao\*, **Hongyi Jing\***, Xiawei Liu, Jiageng Mao, Abha Jia, Hanwen Yang, Rong Xue, Sergey Zakharov, Vitor Guizilini and Yue Wang. "Humanoid Everyday: A Comprehensive Robotic Dataset for Open-World Humanoid Manipulation", *arXiv preprint arXiv:2510.08807*, 2025.
- Yuwen Tan, Xiang Xiang, Yifeng Chen, **Hongyi Jing**, Shiyang Ye, Chaoran Xue and Hui Xu. "Coupling Bracket Segmentation and Tooth Surface Reconstruction on 3D Dental Models", *MICCAI 2023*, published.

## RESEARCH EXPERIENCES

**Humanoid Manipulation Learning and Evaluation**

December 2024 – September 2025

*Research Assistant; Advisor: Prof. Yue Wang from USC*

*Lab: Geometry, Vision, and Learning (GVL) Lab<sup>1</sup>, University of Southern California*

- Presented Humanoid Everyday, a diverse and multi-modal humanoid manipulation dataset comprising 10.3k trajectories with an optimized teleoperation pipeline.
- Conducted an analysis of the performance of representative policy learning models on Humanoid Everyday, including imitation learning and VLA models, highlighting their strengths and limitations.
- Built a cloud-based evaluation platform that allows researchers to seamlessly deploy their policies in our controlled setting and receive performance feedback.

**Large Language Model in Chemistry**

July 2023 – April 2024

*Research Assistant; Advisor: Prof. Xiangliang Zhang from Notre Dame*

*Lab: Machine Intelligence and kNowledge Engineering (MINE) Lab<sup>2</sup>, University of Notre Dame*

- Explored the application of large language models (LLMs) in solving diverse chemical problems, including reaction prediction, relation extraction, and named entity recognition.
- Evaluated the capability boundaries of LLMs in chemical information extraction tasks, comparing their performance against specialized models to analyze the advantages and shortcomings of LLMs in chemical tasks.
- Revisited and improved the existing evaluation metrics for LLMs in scientific information extraction, and establish a comprehensive system for evaluating the chemical capabilities of LLMs.

**3D Dental Model Segmentation and Reconstruction**

August 2022 – March 2023

*Research Assistant; Advisor: Prof. Xiang Xiang from HUST*

*Lab: Human-AI Interaction and Visualization (HAIV) Lab<sup>3</sup>, HUST*

- Employed deep learning networks and projection-based surface reconstruction to develop an efficient approach for tooth segmentation and 3D reconstruction in orthodontic treatment.
- Designed a graph-based network for bracket segmentation on 3D dental models, and performed post-processing after bracket segmentation to optimize tooth edges to remove inaccuracies and enhance surface smoothness.
- Implemented 3D dental model reconstruction after bracket removal by projecting the dental surface onto a 2D plane, repairing it based on curvature information, and re-projecting it onto the original 3D tooth surface.

## ADDITIONAL INFORMATION

- Programming: Python, C, C++, MATLAB.
- Research Interests: Robotics, Dexterous Loco-Manipulation, Whole-Body Control, Vision-Language Models.

<sup>1</sup> Official website of GVL Lab is available at: <https://usc-gvl.github.io/>

<sup>2</sup> Official website of MINE Lab is available at: <https://sites.nd.edu/xiangliang-zhang/>

<sup>3</sup> Official website of HAIV Lab is available at: <https://haivlab.wixsite.com/home>