Minghao Feng

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Education

Zhejiang University, College of Computer Science and Technology *Sept. 2022 – June 2026(Expected)*

- *Bachelor of Engineering in Computer Science and Technology*
- *Minor in Chu Kochen Honors College, Advanced Honor Class of Engineering Education*
- **GPA: 4.18 / 4.3 (Top 3%)**
- **Core Coursework & Grades:**

  Data Structures (5/5) Advanced Data Structures & Algorithm Analysis (5/5) Operating Systems (5/5)
  Computer Organization (5/5) Discrete Mathematics and Its Applications (5/5)
  Mathematical Modeling (4.8/5) Database Systems (4.5/5)

Awards and Honors

- **National Scholarship** *Dec. 2023 & Dec. 2024*
- **Zhejiang University First-Class Scholarship** *Dec. 2023 & Dec. 2024*
- **Huawei Elite Scholarship** *Dec. 2024*
- **Group Programming Ladder Tournament(GPLT) National First Prize** (Team Award) *Apr. 2024*
- **National Olympiad in Informatics in Provinces (NOIP) Senior First Prize**(Zhejiang) *Dec. 2018*

Research Experience

VisMimic: Integrating Motion Chain in Feedback Video Generation for Motor Coaching

| State Key Lab of CAD&CG, Zhejiang University *Nov. 2024 – Mar. 2025*

- Contributed to a 3D modeling and analysis system for coaching human motion videos.
- Currently submitted to **UIST**
- **Responsibilities:**
  - Utilized the `gvhmr` model for `smplx` modeling of motion videos.
  - Developed a `three.js`-based GLB file viewer for 3D scene rendering.
  - Designed and implemented the frontend system interface using `Vue`, including playback control and interaction for 3D models and 2D image sequences.

RL2Path: Efficient Expert-Guided Reinforcement Learning for Safe Local Path Planning

| State Key Lab of CAD&CG, Zhejiang University *Feb. 2025 – Mar. 2025*

- Aimed to achieve local obstacle avoidance path planning for wheeled robots using reinforcement learning. The model, ignited by `PC-Planner`, directly outputs planned paths rather than low-level control commands, enhancing training and control efficiency and robustness.
- Currently submitted to **IROS 2025**
- **Responsibilities:**
  - Established the `ROS2` simulation environment.
  - Reproduced and simulated the `PathRL` paper's approach.

Project Experience

Embodied AI Project: Tour Guide Robot at Unitree Robotics | Hangzhou *Apr. 2025 – June 2025*

- Developed a tour guide robot on the Unitree G1 humanoid robot, enabling autonomous navigation and interaction driven by large language models.
- **Responsibilities:**
  - Configured and established **ROS2** environment and robot communication systems on the server.
  - Implemented and deployed 3D point cloud-based SLAM algorithms (`slam_toolbox`, `cartographer`) and the `nav2` navigation system.
  - Gained familiarity with `Isaac Sim` (`Isaac Gym`) environment setup and reinforcement learning training pipelines.

Technical Skills

- **Programming Languages:** C/C++, Python
- **Frameworks:** PyTorch (Deep Learning), ROS2 (Robot Operating System), Linux (Development Environment, Shell Scripting)
- **Tools:** Git, Docker, Conda
- **Languages:** Chinese(Native), English(CET-6 581)

Personal Information

- Optimistic and proactive with strong resilience.
- Possesses excellent learning abilities, teamwork, and communication skills.
- Enjoys sports and life.