# RICHARD(HUI) LI

(+86) 13125190563 ⋄ huili_70@outlook.com ⋄ Relocating to Irvine, CA

lgm70.github.io ⋄ linkedin.com/in/hui-li-b16487239/

## EDUCATION

**University of California, Irvine**, CA                                    Expected Sept. 2023 - June 2025
Master of Science in Computer Science

**Huazhong University of Science and Technology**, Wuhan, China        Sept. 2019 - June 2023
Bachelor of Engineering in Computer Science and Technology
GPA 3.98/4.0 (**top 2%**)

## SKILLS

| | |
|---|---|
| **Programming Languages** | Java, Python, C, JavaScript, Verilog, Assembly |
| **Frameworks & Databases & Tools** | Pytorch, MySQL, ROS, Git, Shell |

## EXPERIENCE

**Research Assitant**                                                                June - Oct. 2022
OPTML Group, Michigan State University                                    *East Lansing, MI*

- Proposed Smoothed Unrolling (SMUG) that systematically integrates Randomized Smoothing (RS) with the state-of-the-art model MoDL to mitigate its lack of robustness in MRI reconstruction
- Proposed a 'pre-training + fine-tuning' scheme and a novel unrolling loss to improve training effectiveness and efficiency of SMUG
- Developed SMUG in **Python** using **Pytorch** and improved the peak signal-to-noise ratio (PSNR) of MRI reconstruction by **3.1, 7.2 and 1.9 dB** on three types of robustness
- Published in ICASSP 2023 (Poster)

## PROJECTS

**RoboMaster**                                                                    Sept. - Oct. 2022

- Implemented D* lite algorithm in **Python** for robot navigation
- Developed a robot-host communication system using **Robot Operating System (ROS)** and **Python**
- Utilized infrared sensor and camera on the robot to achieve autopilot in an indoor playground

**Jigsaw Puzzle Game Website**                                                    Oct. - Dec. 2021

- Developed a online jigsaw game on HTML canvas using **JavaScript** with **Paper.js** graphics framework
- Implemented jigsaw tile segmentation, 'pick-drag-release' movement and assembly
- Adapted to different browsers and drag operations on PC and mobile devices
- Provided four types of hints, including image showing, border-only showing, tile flashing and relocating
- Proposed a novel magnet mode for fun-seeking users

**File Search Engine**                                                            Mar. - May 2021

- Developed an offline text search engine in **Java** with cached inverted index
- Achieved stop-word filtering, multi-keywords searching, results scoring and ranking

## HONORS & AWARDS

- PRC National Scholarship                                                        Dec. 2020
- HUST Outstanding Graduate                                                        June 2023