Haoxuan Li

lihaoxua@usc.edu | +1 (657) 243-7436 | linkedin.com/in/haoxuanli

EDUCATION

University of Southern California   August 2023 - Present
Master of Science, Computer Science (expected in May 2025)   Los Angeles, CA

University of California, Irvine   September 2022 - June 2023
Electrical Engineering and Computer Science (Joint Program with HIT), GPA: 3.68/4.0   Irvine, CA

Harbin Institute of Technology   August 2019 - June 2023
Bachelor of Engineering, Computer Science and Technology, GPA: 3.5/4.0   Harbin, China

SKILLS

Languages: Python, Java, C, C++, SQL, MATLAB, R, Verilog

Frameworks/Tools: Pycharm, Eclipse, Visual Studio, MySQL, Git, Vivado, Rstudio, Wireshark

ACADEMIC EXPERIENCE

Computer Vision Lab, University of California, Irvine   October 2022 - June 2023
Research Assistant
- Participated in the project of digitizing Mollweide projection plots of different pitch types for baseball players
- Collected VNIR/SWIR hyperspectral image data from certain areas of buildings through MATLAB

Massive Data Computing Lab, Harbin Institute of Technology   March 2021 - June 2023
Research Assistant
- Assisted in data cleaning, detecting, mining, and pricing, algorithm adjustment, testing, and paper
- Participated in *Research on Data Pricing Technology based on Data Quality Evaluation*, and contributed to the paper
- Completed the paper *Time Series Data Error Detection and Cleaning Algorithm based on Multiple Constraints*

PROJECTS

Research on Hybrid Error Data Cleaning Technology for Human In The Loop
- Schemed a data cleaning framework using **Python** and **SQL** to improve the quality of data cleaning through human guidance
- Designed an algorithm using **Numpy**, **Pandas** and **Box Plot** to detected missing value and outliers in the dataset
- Implemented a neural network model using **Tensorflow** and K-NN model in **Sklearn** to predict repair methods and value

Camera Translator based on Text Style Fidelity Generation Technology
- Utilized **Baidu OCR** to generate text detection and recognition of the images and **Baidu translator API** for text translation
- Developed a model for text style fidelity generation technology with **MindSpore** frame and tested it on Ascent 910 platform
- Designed a related WeChat applet to make the model with commercial functionality

Intelligent Wheelchair based on Embedded Development
- Built a move method via the control of the Eye Tracker-Laptop-Raspberry Pi-motor driver
- Wrote coordinate extraction algorithm, control information conversion algorithm and UDP communication algorithm using **C++**
- Completed the multithreaded device integration and driving on **Raspberry Pi**, used eye tracker and **Tobii API** to detect the icon that the user was focusing on, LED lights to call for help and ultrasonic to obstacle avoidance and circumvention
- Implemented an effective tool for ALS patients and disabled individuals to travel independently through eye movement control

PUBLICATION

X. Ding, H. Wang, G. Li, **H. Li**, Y. Li and Y. Liu. ***IoT data cleaning techniques: A survey***. Intelligent and Converged Networks, vol. 3, no. 4, pp. 325-339, December 2022, doi: 10.23919/ICN.2022.0026. https://ieeexplore.ieee.org/document/10026521

Ding XO, Li YZ, Wang C, Wang HZ, **Li HX**. ***Time Series Data Quality Rules Discovery with Both Row and Column Dependencies***. Ruan Jian Xue Bao/Journal of Software, 2023, 34(3): 1065-1086.http://www.jos.org.cn/1000-9825/6793.htm

HONOR & AWARD

Provincial Gold Award - 2021 the 7th China College Students' "Internet+" Innovation and Entrepreneurship Competition

Excellent Award - 2020 the 10th "Zuguang Cup" Creativity & Innovation Entrepreneurship Competition at HIT

3rd Prize - 2019-2020 Renmin Scholarship, Harbin Institute of Technology (HIT)

1st Prize - 2019 Freshman Annual Project at Harbin Institute of Technology