

# CHENHAO LI

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## EDUCATION

<b>ZJU-UIUC Institute</b>	09/2019 ~ 06/2023
B.S. in Electrical Engineering	Haining, China; Champaign, Illinois
• Zhejiang University	GPA: 3.95 / 4.0
• University of Illinois Urbana Champaign	GPA: 3.73 / 4.0
<b>Ranked 9/55</b>	
Sample Coursework and Grade:	ECE120 Intro to Computing: A
ECE313 Probability theory with applications: A	MATH213 Basic Discrete Mathematics: A+
CS225 Data Structure: A	ECE385 Digital Systems Laboratory: A
CS412 Data Mining: In Progress	ECE448 Artificial Intelligence: In Progress

## HONORS

ZJU 3 <sup>rd</sup> Prize Scholarship	06/2020; 06/2021
ZJU-UIUC Institute 3 <sup>rd</sup> Prize Scholarship for Academic Excellence	06/2020; 06/2021
ZJU-UIUC Institute Dean's List	06/2020; 06/2020
ZJU-UIUC Institute Academic Model Student	06/2020; 06/2020
Gold Award, Zhejiang Internet + Innovation and Entrepreneurship Competition	08/2021

## RESEARCH PROJECTS

<b>Tracking Algorithm under Mul-view</b>	06/2021 ~ Present
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Mentored by Gao'ang Wang, Prof.

- Built a database for the data sets of visual key points information about the figures' bodies, in videos taken from multiple views, applying open-source frameworks such as Detectron2.
- Programmed the tracking values, and, with videopose3d, converted 2-dimensional information into 3-dimensional data.
- Conducted regression analysis into the 2D and 3D key points as well as ground functions to determine the figures' positions within the frame, fine-tuned with the videopose3d model that involved constraint to the movement detections of the ground and the figures.
- Rotated and translated all 3D coordinate as a world coordinate with fixed ground points, tracked with the smallest distance in distance matrix.
- Ranked within the top 3 out of 80 projects in the Zhejiang University Undergraduate Student Research Training Program, a national-level program.

<b>Missing Label Detection</b>	10/2021 ~ 12/2021
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Mentored by Gao'ang Wang, Prof., Zuozhu Liu, Prof.

- Proposed the project as a tool that improve the performance with a missing label train dataset.
- With imperfect bounding box annotation, 30% of missing labels in this project, normal detection method like YOLOv5 doesn't achieve a relatively good result.
- In our project, we use COCO dataset. And we greatly eliminate the negative influence on missing labels by using a modified loss function and dynamic weight. Our method result is close to YOLOv5 under perfect annotation.

<b>Y-Project</b>	10/2020 ~ 10/2021
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Mentored by Yan Xiao, Prof., Yue Zhou, Prof.

- Y-Project was initiated as an integrated design strategy for state-of-the-art technologies applied to develop an advanced prototype of an eco-friendly housing, able to demonstrate the highest achievable standards in architectural and environmental quality, energy efficiency, and economic viability.
- Developed the prototype of a housing where, with computer vision technology, the intelligent system installed reacts with the habitants through projection technology that replaces screens, and offers them heads-

up, hands-free and simple ways to engage digitally with the outside world through information exchange in augmented and extended dimensions via daily objects.

- Accepted as one of the sponsored projects by Solar Decathlon China 2021.

## **EXTRACURRICULAR PARTICIPATION**

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**Zhejiang University Alumni Innovation & Entrepreneurship Competition** 12/2019

Group Leader, Organizer Liaison Team

**Zhejiang University RCDP and SQTP Programs** 03/2020 ~ 12/2020

Project Initiator and Coordinator

## **SKILLS**

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Programming: Java Python C C++

Interests: Machine Learning, Software Development, Sytem and Network