CHENHAO LI

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EDUCATION

ZJU-UIUC Institute   09/2019 ~ 06/2023
B.S. in Electrical Engineering   Haining, China; Champaign, Illinois
- Zhejiang University   GPA: 3.90 / 4.0
- University of Illinois Urbana Champaign   GPA: 3.77 / 4.0

Ranked 9/55

Sample Coursework and Grade:	ECE120 Intro to Computing: A
ECE220 Computer System & Programming: B+	MATH213 Basic Discrete Mathematics: A+
CS225 Data Structure: A	ECE449 Machine Learning: In Progress
ECE110 Intro to Electronics: A	ECE210 Analog Signal Processing: A+

HONORS

ZJU 3rd Prize Scholarship	06/2020; 06/2021
ZJU-UIUC Institute 3rd 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
ZJU-UIUC Institute Innovation & Entrepreneurship Model Student	06/2021
ZJU-UIUC Institute Community Service Model Student	06/2020
Gold Award, Zhejiang Internet + Innovation and Entrepreneurship Competition	08/2021

RESEARCH PROJECTS

Development of Tracking Algorithm under Mul-view   06/2021 ~ Present
Mentored by Gao'ang Wang, Prof.   Programmer
- 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 Detectron 2 (R101-FPN-3x).
- 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 & Innovation Initiative, a national-level program.

Development of a D-HPC Supercomputing Platform   06/2021 ~ 08/2021
Mentored by Tianyin Xu, Prof.   Programmer
- Proposed the project as a supercomputing network consisting of interconnected highly-functional computational nodes that offers powerful and flexible data processing for needs in governance, industry, academics, design, and various types of groups and individuals related to statistical analysis.
- Programmed the block-chain-based and low-latency framework supporting the platform to outperform conventional cloud-computing solution providers in matters including but not limited to data storage, transmissions latency, computational power, and information security.
- Compiled detailed business plans and hosted multiple roadshows to specify modes of the platform's commercialized application.
- Won the Provincial-level Gold Award at the 7th Zhejiang Province International "Internet +" College Student Innovation & Entrepreneurship Competition.

Object Detection with Missing Labels   10/2021 ~ Present

Mentored by Gao'ang Wang, Prof., Zuozhu Liu, Prof.   Programmer

- Proposed the project as a tool that improve the performance with a missing label train dataset.
- The imperfect bounding box annotations or missing annotations of objects in training images can have a drastic impact on its performance.
- Use COCO dataset, evaluated with mAP, that included a training set for the algorithm that included 1,000 images with 30% of them missing labels, which was applied to a test set with 2,693 labeled images that achieved accuracies above 70% and growing.

Y-Project   10/2020 ~ 10/2021

Mentored by Yan Xiao, Prof., Yue Zhou, Prof.   Programmer

- 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

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

Programming: Java Python C C++

Interests: Machine Learning, Software Development, Sytem and Network