HANGZHENG LIN

718 East Haizhou Street, Haining China
(+86)13655773396 hl30@illinois.edu

EDUCATION

Zhejiang University (ZJU) *August 2017 – June 2021 (expected)*
B.Eng. in Electronic and Computer Engineering
GPA: 3.94 / 4.0 (70.00 Credit Hours)

University of Illinois at Urbana-Champaign (UIUC) *August 2017 – May 2021 (expected)*
B.S. in Computer Engineering
GPA: 3.94 / 4.0 (57.00 Credit Hours)

RESEARCH EXPERIENCE

Deep Learning Models for Human Aggression Detection *May 2020 - Present*
Advisor: Volodymyr Kindratenko, UIUC

- Created our own dataset which we manually cut and labeled from the internet to evaluate its flexibility.
- Reproduced and compared the performance of several vision-based neural network models, including the Transfer Learning model, Conv-LSTM and 3D convolution model, on human aggressive behavior.
- Developed new CNN models, including optical flow based VGG and transfer learning + LSTM models.

Human Falling Detection by Optical Flow and CNN *January 2020 - May 2020*
Advisor: Volodymyr Kindratenko, UIUC

- Developed a Convolutional Neural Network to train a neuro-based model to detect human falling.
- Created our own video data set and analyzed different data stacking patterns on neural network training.
- Implemented an end-to-end human falling detection model by using a camera video stream to provide alarm service.

Huawei HiSilicon *July 2019 - August 2019*

- Involved in the Huawei Turing department and participated in the development of Da Vinci chip operators. (The Da Vinci chip is one of the most advanced neural network chips in the world)
- Accelerated data transmission by optimizing the way to allocate the moving data and divide data into parts with their corresponding buffer and cache.
- Reduced the transmission delay from 50ms to 3ms.

Mathematical Contest in Modeling *January 2019*
Advisor: Wei Liu, KTH Royal Institute of Technology

- Selected, configured, optimally packed, deployed, and operated a set of midsize (group 2) unmanned aerial vehicles (UAV) that would supplement existing relief to medical supply chains in Puerto Rico.
- Used AHP to set the weights for selected features and did normalization for them. Applied 3D Bin-Packing API to approach the optimal solution of the 3D packing problem. Applied Greedy Algorithm, Graph theory to calculate the accurate optimum location.
- Provided a stable model to solve the two NP problems with high usage of containers, quick speed to meet the hospital's needs.
- Awarded the **Outstanding Winners** (0.1%) and the **Informs Award** (No.1 world ranking 0.02%)

TEACHING ASSISTANT EXPERIENCE

MATH 286: Intro to Differential Eq Plus *Spring 2020*
Instructor: Thomas Honold

- Led a weekly discussion section to help students understand course material. Helped students review lectures.
- Graded weekly student assignments, exams, and the final project. Answered questions during Office Hour, providing crucial support to students in their learning process.

SELECTED HONORS & AWARDS

Dean's List, ZJUI-UIUC Institute	2020
Zhejiang Provincial Government Scholarship	2019
Zhejiang University Scholarship - First Prize (top 3% in ZJU)	2019
Outstanding Student of Zhejiang University	2017 - 2019
First-class Scholarship of ZJU-UIUC Institute	2019
Academic Excellent Award of Zhejiang University	2017 - 2019
Brave star of Huawei (Employee Recognition Award)	2019
Top Ten Social Practice Teams (Volunteer team) of Zhejiang University	2019

SKILLS

Programming Languages	C++, C, Python, SystemVerilog, MATLAB
Package & Tools	Tensorflow, PyTorch, Git, Shell, Latex, CUDA
Languages	Mandarin, English