

HUINING LIANG

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EDUCATION

University of Illinois at Urbana-Champaign *Illinois*
MEng. (19Fall) Electrical and Computer Engineering | GPA: 3.58/4.0 Dec. 2020 (*expected*)

Zhejiang University *Zhejiang, China*

Chu Kochen Honors College (Top 5% selected students in Zhejiang University)

B.Eng. Electrical Automation | GPA: 3.80/4.0 *July 2020*

Related Course: Artificial Intelligence, Computer Vision, Pattern Recognition, Computer Security I, Applied Parallel Programming, Electric Circuit and Electronic Technology I & II, Signal Analysis and Processing, Principle and Interface Technology of Microprocessors, Engineering Electromagnetic Fields & Waves

RESEARCH EXPERIENCE

Student Research and Training Program (SRTP):

Raspberry Pi Based Sound Source Localization and Follow-up Shooting System

Zhejiang University, Hangzhou | Python *Mar. 2018 - July 2020*

- Design a set of sound source localization and image tracking system with high precision.
- Apply face recognition to the control process of shooting as an auxiliary method.

Photovoltaic Power Generation Prediction and State Assessment Based on Deep Learning

Zhejiang University, Hangzhou | Matlab *Sept. 2018 – Dec. 2018*

- Build photovoltaic power system prediction and assessment models based on deep learning strategy to provide support for efficient operation of photovoltaic systems.

PROJECTS

Semantic Segmentation

University of Illinois at Urbana-Champaign, Illinois | Python *Apr. 2020 – May. 2020*

- Build a semantic segmentation model on the Stanford Background Dataset to classify image pixels into the 9 categories.
- Train the model with different optimizers and compared the performances of the model.

Improving BaseNet on FashionMNIST

University of Illinois at Urbana-Champaign, Illinois | Python *Apr. 2020 – May. 2020*

- Create an improved deep net achieving more than 90% accuracy with judicious architecture and implementation choices.

Facial Similarity Recognition with Siamese Neural Network

University of Illinois at Urbana-Champaign, Illinois | Python *Mar. 2020 – May. 2020*

- Build a facial similarity recognition system with Siamese Network to quantify the similarity between two given photos.

Scale-space Blob Detection

University of Illinois at Urbana-Champaign, Illinois | Python *Feb. 2020 – Mar. 2020*

- Implement an efficient Laplacian blob detector.

Colorizing Prokudin-Gorskii Images

University of Illinois at Urbana-Champaign, Illinois | Python *Jan. 2020 - Feb. 2020*

- Produce a color image with digitized Prokudin-Gorskii glass plate images.

Art Style Recognition Based on Convolutional Neural Networks

Massachusetts Institute of Technology, Boston | Python

July 2019 - Aug. 2019

- Build and train a neural network to match the artists with the given paintings.

Image Processing Based on Matlab

Zhejiang University, Hangzhou | Matlab

Apr. 2018 - June 2018

- Design practical image signal processing function blocks.

ADDITIONAL ACTIVITIES

International Genetically Engineered Machine (iGEM) Competition

Zhejiang University, Hangzhou | Hynes Convention Center, Boston

Dec. 2017 - Oct. 2018

- Multidisciplinary teamwork including modeling, hardware building and wet lab experiments to complete our biosensor system for this worldwide synthetic biology competition

SKILLS

Programming Languages	Python, C/C++, Matlab, Pascal
Platforms	Windows, Linux, OS X
Tools	Anaconda, Keil, Altium Designer, OrCAD PSpice

AWARDS

Gold medal in the iGEM 2018 competition

Scholarship for Outstanding Students in Chu Kochen Honors College (2018-2019)

The Third Prize in Zhejiang Physics Innovation Competition for college students (Theory. 2017)