

# YIHENG CHEN

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University of Science and Technology of China. Hefei, China

## Education

### **University of Science and Technology of China (USTC)**

**09/2018 – 06/2022**

Bachelor of Engineering, Department of Automation

- Elite Program for Artificial Intelligence (17% acceptance rate)
- Major: Artificial Intelligence & Automation
- GPA: 3.50 / 4.3 (13/ 83)
- Core Courses: Computer Programming (93/100) Stochastic Processes (98/100) Critical Thinking (A+) Linear Algebra (86/100) Pattern Recognition (88/100) Data Structure and Algorithm (85/100)

## Research Experiences

### **National Undergraduate Training Program for Innovation and Entrepreneurship**

**09/2020 – present**

**Advisor: Prof. Xingfu Wang**

#### **Research on Advanced Network of Vehicles Tracking and Obstacle Avoidance Method**

- Constructing socket communication system between vehicles on the Raspberry Pi platform
- Improving and applying avoidance algorithms of autonomous driving (like Bézier curves) on the raspberry vehicles
- Designing algorithms in local networks for one vehicle helping another without sensors to track and evade obstacles

### **Stereo Matching of 2D Pictures in Computer Vision**

**10/2020 -12/ 2020**

**Advisor: Prof. Zhiwei Xiong**

- Used OpenCV library for binocular stereo matching of images, including stereo correction, parallax map, depth map, and finally got depth estimation

### **Principal Component Analysis (PCA) and Face Recognition Projects**

**09/2020 -12/ 2020**

**Advisor: Prof. Zhigang Zheng**

- Learnt feature extraction methods like PCA, HOG and SIFT
- Improved and applied EigenFace algorithm for face image processing and recognition
- Learned the method of data dimensionality reduction to extract effective information and avoid dimension disaster

### **Academic Research on Neuromorphic Engineering**

**03/2020 -08/ 2020**

### **National Engineering Laboratory for Brain-inspired Intelligence**

**Advisor: Prof. Feng Zhao**

- Read related papers in the field of neuromorphic engineering, learned about a hardware method: using integrated circuits to build an artificial neural network to simulate the brain

## Honor & Awards

- National Encouragement Scholarship (5% of 300 students) 2020
- National Mathematics Competition, the third prize 2020
- Scholarship for Outstanding Students (Bronze Award, top 30%) 2019
- Interviewing famous schoolfellows, outstanding volunteer 2019
- Table tennis competition of the department, second place 2018

## Skills

Programming Skills: Python, MATLAB, C.

Software: Raspbian, Multisim, Wireshark, Pycharm