# Congshan

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## Education

**Zhejiang University**, Hangzhou, China                                                                                09/2019 – Now
B.Eng in Automation, Chu Kochen Honors College
GPA: 3.90/4.00

- Selected Courses: Probability and Mathematical Statistics (98); Operating System(98); Introduction to Natural Language Processing(97); Python Programming(96) ;Fundamentals of Data Structures(93); Principles of Programming Languages(93); Fundamental of Programming(90); Lectures on C Programming(90).

## Awards

**Champion** of RoboMaster University Series                                                                                2022

- Generated an initial vision framework for robots.

**Champion** of Robocup Humanoid League-China Open                                                           2021

- Constructed the robot target recognition code.
- Built a comprehensive model to solve robot motion using forward and inverse kinematics.

**First Class Scholarship** of Zhejiang University                                                                   2022 & 2021
**Innovation and Leadership Scholarship** of Zhejiang University                                        2022 & 2021
**National Innovation** of the Scientific Research Practice Project                                                 2021
**Outstanding Minister** of the Student Organization of Chu Kochen Honors College, Zhejiang University                                                                                                                            2020

## Research Experience

**Out of Distribution Detection with VAE**                                                                        04/2022 - Now
Advisor: Prof. Huajie Shao                                                                                     Willian & Mary, Online

- Learned the basic models of deep learning: CNN, LSTM, Transformer, VAE, etc.
- Modeled the feature embedding space as a mixture of multivariate Gaussian distributions based on Control VAE.

**Multi-agent tracking and hunting based on reinforcement learning**                          03/2021 - 09/2021
Advisor: Prof. Rong Xiong                                                                              Zhejiang University, Hangzhou

- Developed and maintained single agent navigation with double DQN algorithm.
- Implemented multi-agent cooperative tracking and hunting with TD3 algorithm.

**Scientific Research Training in ZJU Robotics Lab**                                                        08/2021 - 12/2021
Advisor: Prof. Yue Wang                                                                                Zhejiang University, Hangzhou

- Developed the neural latent optimization approach to retarget motion by learning the topological information in human skeletons and robot structures.
- Built gym env for humanoid robots including NAO and Dancer.

## social activity

**Student Organization of Chu Kochen Honors College, Zhejiang University** 09/2020 - 06/2021

- Served as the head of the Student Union Activity Department, and organized many charitable activities of more than 400 people.

**Supporting education in rural areas, Zhejiang University**                                                06/2020 - 08/2021

- Served as the leader of the Yunnan Honghe Support Education Project.

## Skills

Python, OpenAI, Pytorch, C++, C, Java, Matlab, Vim, Cmake, Git, LaTeX