#### Zhu Hu

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#### **Education**

#### Xi'an Jiaotong university

#### **Automation (GPA:3.33/4.3)**

2016.9-2020.07

- English level: CET-6, Have a certain ability of listening, speaking, reading and writing.
- **Majors:** Digital Image Processing (88), Network and Information Security (93), Data Mining and Knowledge Discovery (85), Principle Of Automatic Control (82).
- Main Honors: Two National Inspirational Scholarships, Outstanding Student Cadres, The third prize of 2019 RoboCup Robot World Cup China competition, The third prize of the 10th "Challenge Cup" Shaanxi College Students' extracurricular academic and technological works competition, The gold medal of the 10th National College Students' e-commerce "innovation, creativity and entrepreneurship" challenge competition, The gold medal of 2019 entrepreneurship practice competition and 2017 entrepreneurship practice competition, etc.

#### **Projects**

## **《A 3D VOF interface reconstruction algorithm based** on arbitrary polyhedral mesh》

Third author

2018.6-2018.9

• In order to solve the problems in multiphase flow experiments, a simple method for calculating the volume of the overlapped part of any polyhedron is put forward innovatively. Among them, Newton iterative method and other algorithms are applied, which are included in the Journal of Nuclear Power Engineering.

### **«Application of digital watermark and asymmetric encryption**

Course projects

2019.5-2019.6

algorithm in two-dimensional code anti-counterfeiting system \!\!\! \rangle

• Combine RSA asymmetric encryption algorithm, digital watermark and QR code technology to realize the QR code anti-counterfeiting system. This system may improve the security of QR code. This project is a course project of network and information security, which is completed by individuals independently.

#### **Internship Experience**

#### Xi'an Shufeng Information Technology Co., Ltd

**Chief of Staff** 

2018.5-2019.5

- Use C + + to realize relevant calculation tasks, and be familiar with OpenCV library.
- Organizing company employees to participate in entrepreneurial competitions, discussing business models with the entrepreneurial mentors, and obtaining the "Internet plus" business competition Silver Award (provincial level), Gold Award (school level), Third prize of the 7th Shaanxi innovation and entrepreneurship competition.

#### Lvmeng Technology (Xi'an Branch)

Software development

2019.7-2019.8

• Develop asymmetric encryption and decryption software based on the national security standard, and implement iteration and maintenance of products. As the main developer, responsible for code integration and optimization.

#### **Campus Activities**

#### RoboCup robot team of Xi'an Jiaotong University

The main players

2018.9-to dat

The original framework of the robot is improved, mainly for the optimization and improvement of the robot's action in the football match and the robot's own visual model. Among them, the robot action needs to adjust the joints of the robot one by one to meet the optimization requirements. Participated in the RoboCup standard platform group of the robot competition in 2019, and won the National Third Prize.

# Exploration and suggestions on rural photovoltaic poverty alleviation model - based on the investigation of Yanchuan photovoltaic poverty elleviation project

Second author

2018.12-2019.3

photovoltaic poverty alleviation project

• Led 8 people to Yanchuan County to conduct field research on the local poverty alleviation effect, ecology, employment and social impact from the photovoltaic poverty alleviation project, collect more than 100 questionnaires of poor households, wrote more than 40 pages of philosophy and Social Sciences social investigation report in cooperation with the team, and won the school level second prize.

## Research on 3D reconstruction algorithm of monocular image based on deep learning

**Developers** 

2018.12-2019.5

• In this project, an omnidirectional robot chassis with a load of 70kg is invented, and a camera is installed to realize 3D reconstruction using MVE open-source third-party library; Won the third prize of the 10th "Challenge Cup" Shaanxi University Students' extracurricular academic and technological works competition.

Professional Class Monitor 2016.9-2017.7

- Assist teachers to jointly manage the class, Organize and lead the class to participate in the activity.
- Finally, we got the excellent class and I got the excellent student cadres.