# HAO WANG

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#### **EDUCATION**

### Xi'an Jiaotong University

September 2014 - June 2018

B.E. in Electrical Engineering and Automation

Overall GPA:3.68/4.3 87.5/100

Top 10%

Related Courses: Programming Languages, Software Engineering, Intro. to Computer structure, Machine Learning, CNN for Visual Recognition, Data Structures and Algorithms

# **HONORS & QUALIFICATIONS**

Outstanding Graduate of XJTU	2018
National Scholarship (6 out of 337)	2017
$1^{st}$ Prize of the $3^{rd}$ GaN System Competition organized by CPSS	
The Silver Award of Shaanxi Province in the $3^{rd}$ 'Internet +" Competition	
National Encouragement Scholarship (12 out of 337)	2016
$2^{nd}$ Prize in Mathematics Modeling Contest of Shaanxi Province	
Excellent Student of XJTU	
National Encouragement Scholarship (12 out of 337)	2015
$1^{st}$ Prize in Mathematics Modeling Contest of XJTU	

#### TECHNICAL STRENGTHS

Computer Languages C/C++, Python, MATLAB, LaTeX, SQL Tools PyTorch, TensorFlow, Linux, SLAM

#### RESEARCH & EXCHANGE EXPERIENCE

#### Internship in UISEE

June 2019 -

LiDAR point clouds Segmentation

- · Built a deep learning network based on VoxelNet, including adjusting the data format and streamlining the network structure.
- · Data augmentation using rotation, improved the recall rate and generalization capacity in specific dataset.
- · Annotated LiDAR data manually and analyzed the impact of data on networks.

# Handwritten Numbers Recognition Program

May 2019

Leader

- · Labeled images with one-hot method and divided MNIST dataset to train, validation and test set.
- · Trained and predicted handwritten numbers using the DNN with Softmax output and GradientDescentOptimizer in TensorFlow, got an accuracy of 91%.
- Established a three-layer convolutional neural network with pooling layer to increase the recognition accuracy of MNIST to 97%.

# China Mathematical Contest in Modeling

August 2018

Leader

- · Analyzed the principal component and the classification result to find anomalous center and data.
- · Used the K-Means and FCM algorithms to classify the terrorist attacks.

# UAV Development, National University of Singapore

12 July, 2017 - 10 August, 2017

Core member

- · Processed sensor data with Kalman filter, exchanged messages between laptop and APM 2.6 based on MAVLINK Protocol and used Mission Planner to monitor drone.
- · Collaborated in a team of three to discuss project specifications, task assignments and solutions.
- · Presented weekly progress to the tutor to ensure deadlines were met.

# Development of Information Management System with MCU March 2017 - May 2017 Leader Innovation Training Program, XJTU

- · Designed a system that can recognize ID cards, display information like identification photo and book lending information, and can change the password online.
- $\cdot$  Completed program development of AT89C51 MCU in C language and communication between the client and host.
- · Developed the user-friendly interface in JAVA.
- · Realized the query, addition, deletion and modification of MySQL database.

#### **EXTRA-CURRICULAR**

# Minister of Tang Zhongying Love Society.

September 2017 - July 2018

- · Responsible for the materials management, sending notices and team building.
- · Organized various activities like bag guards and visiting the elderly in the community to pass love, care and attention.

#### Member of Runner Club

September 2016 - Present

- · Take professional running training every week and run a marathon once a year.
- · Swim, play badminton and regularly go to gym with other members.