

Hao Wang

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Education

Xi'an Jiaotong University

September 2014 - June 2018

Bachelor of Engineering

Major in Electrical Engineering

Overall GPA: 3.68/4.3, 87.5/100

Related Coursework:

- Programming Languages
- Data Structures and Algorithms
- Machine Learning
- Operating Systems
- CS231n

Honors & Qualifications

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

Technical Skills

Languages	C/C++, Python, JAVA, LaTeX
Frameworks/Platforms	PyTorch, Ubuntu Linux, MATLAB, Windows
Databases	MySQL
Tools	Git, PyCharm, Visual Studio, IntelliJ

Research & Exchange Experience

Visual Computing Center of KAUST

October 2019 - April 2020

Visiting Student

- Analyzed the oversmoothing of graph convolution networks from the perspective of matrix principle and spectrum, and implemented the shape-preserving GCN inspired by visualization.
- Submitted to ECCV 2020, completed code implementation, experimental analysis and paper writing.
- Familiar with the commonly used frameworks for deep learning algorithms development, mainstream development tools and open source code bases.

Internship at UISEE

June 2019 - September 2019

Research Intern

- Implemented point cloud 3D object detection algorithm based on VoxelNet, and did parameter tuning on the dataset collected from actual scenes.
- Implemented data augmentation to enrich pose features of objects by rotation, scaling, shifting, Gaussian noise and interpolation, and simply used GAN to realize style transfer.
- Participated in the development of point cloud calibration tool, completed the file reading in QT, point cloud calibration and part of visualization code.

Sokoban Game Development

December 2017 - January 2018

Software Programmer/Leader

Programming Training, XJTU

- Programmed extensively as a C++ developer, worked on the user interface and main functions realization, fixed bugs, and corrected programming habits to improve efficiency and reduce errors.

- o Led the team to work gradually, attended regular discussion, optimized code, and updated daily progress.
- o Presented the project to sixty three students and two tutors from industry, demonstrated its functionality and implementation details.

High Efficiency and Power Density Inverter Design

August 2017 - October 2017

Core Member

GaN System Competition, CPSS

- o Designed a single-phase inverter using GaN Devices with 300kHz f_s and 95% efficiency, operating on islanding mode.
- o Helped to decide the main circuit topology and control strategy, and simulated the system in MATLAB.
- o Completed the design and test of signal sampling and conditioning circuits.
- o Finished part of the code of DSP with CCS and debugged the whole system.

UAV Development, NUS

12 July, 2017 - 10 August, 2017

Core Member

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

MCU Information Management System Development

March 2017 - May 2017

Leader

Innovation Training Program, XJTU

- o Designed a system that can recognize ID cards, display information like identification photo and book lending information, and can change the password online.
- o Coded program of AT89C51 MCU in C, and realized the communication between the client and host.
- o Developed the user-friendly interface in JAVA, and implemented addition, deletion and modification of MySQL database.

Publications

Conference and Workshop Papers

- o Ali Thabet, Guocheng Qian, Bernard Ghanem, **Hao Wang**, et al. SFC-Conv: Leveraging Space Filling Curves for Faster Point Cloud Convolutions[C]. Submitted to **ECCV 2020**.
- o Guocheng Qian, Jimmy S. Ren, **Hao Wang**, et al. Trinity of Pixel Enhancement: a Joint Solution for Demosaicing, Denoising and Super-Resolution[C]. Manuscript in prep.

Extracurriculars

Monitor of Class EE47

September 2014 - June 2018

- o Responsible for the team building, coordinated comprehensive affairs within the class.
- o Organized class dinners, graduation photography, career advice lectures and other collective activities, paid attention to every student, and cooperated with the college well.

Minister of Tang Zhongying Love Society

September 2017 - July 2018

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

Volunteer in Shaanxi History Museum

September 2016 - June 2017

- o Responsible for the interpretation of cultural relics and the introduction of history, up to 100 hours of volunteer service time.

Member of Runner Club

September 2014 - June 2018

- o Took professional running training every week and ran a marathon every year.
- o Swim, play badminton, and regularly go to gym.