Zhaoqiang Wang

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Education

Bachelor of Engineering: Optoelectronic Information Science and Engineering

Huazhong University of Science and Technology

- Cumulative GPA: 3.93/4
- Cumulative Average Grade: 92.8/100 Rank: 1st/261

Creative Experience

Project: Simultaneous 3D-imaging using Light Field Microscopy 01/2017-present

Supervisor: Professor **Peng Fei**, Department of Optoelectronic Engineering

- Applied **Light Field** method to an epi-fluorescence microscope to capture the fast biomedical function with postprocessing 3D reconstruction.
- Applied **3D deconvolution** and tested the system on C.elegans (with GFP-based Ca^{2+} indicator). Observe the muscle nucleus of C.elegans in volume of 60um in depth and primarily estimated the resolution to be ~2um in lateral and ~3.5 um in axial under 40x objective.
- Working on system improvement and **Super-Resolution Generative Adversarial Network** on Light Field Microscopy.

Project: Portable Measuring Tool of Far-field Divergence Angle of Laser Based on Wedge Plate Shearing Interference 04/2016-03/2017

Supervisor: Associate Professor **Ying Wang**, Department of Optical and Electronic Information

- Designed and built the portable optical instrument and managed to measure divergence angle in real time @5Hz with an error ranging in $\pm$0.1mrad (tested on semiconductor laser @650nm).
- Creatively implement a double shearing interference optical system.
- Wrote a GUI program for wave plane reconstruction from interference pattern.
- Responsible for the embedded digital circuit design and image processing programming with Python and OpenCV.
- Selected as **National Undergraduate Innovation Program**.

Team: Maze Solver Micromouse team 09/2016-09/2017

Supervisor: Zhenyan Wang, Qiming college of HUST

- Independently implemented Flood Fill Algorithm in C++ and managed to solve random unknown maze with micro-robot based on TI's Tiva C and RTOS.
- Write and edit the training guidebook for the lab and help promote the micromouse in college-wide competitions.

Volunteer: AIESEC global volunteer member 04/2015-08/2015

- Cooperating with the local culture protection organization CECP and visit, record, advertise tens of Chinese traditional artists with volunteers from Thailand, India and US.

Selected Honors

- China National Scholarship 2017 09/2017
- China National Scholarship 2016 09/2016
- China National Scholarship 2015 09/2015
- Third Prize in the 2016 Hubei Province TI cup Undergraduate Electrical Design Contest. 08/2016

Skills and Activities

- 2017 Innovation and Entrepreneurship winter camp at Stanford University led by Yu Liu, Assistant Dean of Qiming college of HUST.
- Language: native in Mandarin, proficient in English.
- Programming: experienced in C for Embedded system development, capable of C++ and Python