Weijiang Xiong

Applicant to MSc in Mechanical Engineering
(+86) 199 4625 2036 weijiangxiong1998@gmail.com weijiang-xiong.github.io

EDUCATION

Tongji University Sept. 2015 - July 2020 (Expected)
B.E. in Mechanical Design Manufacture and Automation *with concentration on Mechatronics*

- GPA: 4.52/5.0 (equivalent to 90.2/100); Rank: 7/113 (6%)
- Seized the Scholarship for Excellence in three continuous academic years
- Courses: Deep Learning, Embedded Systems, Industrial Robotics, C/C++ Programming, Control Engineering

PUBLICATION

[1] Changhong Fu, **Weijiang Xiong**, Fuling Lin, and Yufeng Yue. "*Surrounding-Aware Correlation Filter for UAV Tracking with Selective Spatial Regularization*." Signal Processing (2019): 107324. (**First student author**, JCR Q2, 2018 IF = 4.086 [paper] [video] [code])

[2] Changhong Fu, Yujie He, Fuling Lin, and **Weijiang Xiong**. "*Robust Multi-Kernelized Correlators for UAV Tracking with Adaptive Context Analysis and DynamicWeighted Filters*." (submitted to Neural Computing and Applications in May 2019)

RESEARCH INTERESTS

Robot vision, machine learning, vision-aided control, unmanned aerial vehicle

EXPERIENCE

Vision4Robotics Group, Tongji University Oct. 2018 - Present
Research Assistant [Group Homepage]

- Proposed an accurate and robust visual tracking algorithm for UAV and validated its effectiveness on challenging UAV tracking videos. Related paper published on Signal Processing
- Enhanced the capability of correlation filter by incorporating surrounding information and redirecting the focus of the filter via selective spatial regularization

Center of Digital Innovation, Tongji University Sept. 2018 - Jan. 2019
Mechanical Teaching Assistant for Open-Source Hardware and Programming

- Organized an experiment class of electro-mechanical chain reactions as the TA lead [video]
- Introduced basic sensors for Arduino and Intel RealSense RGBD camera in four classes throughout the semester

PACE Vehicle Engineering Center, Tongji University Sept. 2017 - Aug. 2018
Member of Electronic Group [PACE Homepage]

- Built and programmed a digital driving control module for PEB, a portable electrical bicycle
- Delivered a speech on behalf of Team 6 about the plan for plant layout and in-factory logistics during the manufacture of PEB in the annual forum at GM Warren Tech Center [video]

Super Power Robot Team, Tongji University Sept. 2016 - Aug. 2017
Member of Mechanical Group

- Designed a modularized platform the supply station, a supporting facility that can collect, store and distribute bullet balls to fellow robots in the RoboMaster tournament
- Promoted the allocative efficiency by improving mechanical structure and control strategy

SELECTED AWARDS

Second Prize of Tongji Scholarship for Excellence (top 20%) *2017 - 2018*
Certificate of PACE Project Completion, PUMA Team 6 (**runner-up**) *2017 - 2018*
First Prize of Mathematical Contest in Modeling, Tongji University (top 5%) *May 2018*
Second Prize in the Eastern Sector of Robomaster Competition *2016 - 2017*
First Prize of Tongji Scholarship for Excellence (top 5%) *2015 - 2016*

SKILLS

Programming	Python, Matlab, C/C++
Embedded System	STM32, Arduino, Raspberry Pi
CAD	AutoCAD, Solidworks, Inventor
English	IELTS (7.5, 8.5L/8.5R/6.0W/6.0S), GRE (160V, 170Q, 4.5AW)