Liangqu Long

for CV/ML PhD

✍Institute of Control Theory
and Engineering
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Education

2012-2015 M.Sc in Control Science and Engineering, Central South University, China.

2008-2012 B.Sc in Automation, Central South University, China.

Master Supervisor

Weihua Gui Academician of Chinese Academy of Engineering.

Academic Performance

2008-2011 Undergraduate GPA: 90.32, from honors classes.

2012-2015 Postgraduate GPA: 90.6.

2008-2012 "Excellent Student"×3, "Excellent Graduate", "The First Prize Scholarship", "Enterprise Scholarship", "The Second Prize Scholarship"×3, "National Grants"×2.

2012-2015 Full scholarship and grant.

Patents for Invention
1. Large-scale PLC bus based on PCI-Express. No.201510082221
2. Large-scale PLC system based on Xilinx zynq. No.201510082221.

Publication Design and Implementation of PCI-Express interface based on zynq. CPC-C2015.

Competition Awards

2010 National Champion of Rescue Simulation Competition in RoboCup China Open, the National Second Prize of Family Service Robot Simulation Competition in Robocup China Open .

2011 Second Prize of Freescale Smart Car Contest in Hunan Province.

2011 Third Prize of the National Undergraduate Electronic Design Contest in Hunan Province.

Innovation and Entrepreneurship

2014 Founder of QianXun Tech aerocraft studio(`www.hicopter.com`).

2013 Central South University Start-up:Quadcopter for aerial photography.

2013 Mittal Innovation Project “Research on Multi-Agent formation control algorithm based on potential function and reinforcement learning” and win "Excellent Project".

2014 Innovation and Entrepreneurship Annual Conference for Undergraduate “Excellent Paper”, “My favorite show project”.

Engineering Experience

Face Recognition.

Project description: *Human Face Recognition and Face Verification based on Triplet, accurancy up to 97.6% so far*

Main work: Internship as Machine Learning engineer. Analysis algorithm performance under specified situation. At present I have sampled 80 persons of my colleagues and labeled each portraits with various information such as angle, light, eye, glass, to name a few. I have completed the analysis of face angle, environment light, eye status, glass status, hair status effect on algorithm performance, such as rank-n, distractor-n and ROC curves.

Research on key technology of large-scale PLC.

Project description: *Design and implement an independent intellectual property rights large-scale PLC architecture.*

Main work: Leader of subproject of 863 plan. Carried out a survey of mainstream PLC manufacturer' architecture solutions, We prefer Heterogeneous System Architecture based on Xilinx zynq, which includes an ARM dual-core cpu and a high capacity FPGA onboard. We succeed to port and run our RTOS running on ARM and implemented a PCI express IP running on FPGA alongside. Meanwhile, we designed a new I/O module with PCI express interface support. Corresponding peripheral drivers and applications to test the system bandwidth and RTOS benchmarks were finished successfully. We have achieved bandwidth of 12.67Gib/s during actual measurement.