

ZHENG YUE

Fall 2015 Electrical Engineering (PhD) Applicant • Application Id: 567167

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EDUCATION

Bachelor of Engineering, Shanghai University, Shanghai

Sept. 2011-Jul. 2015

Major: Communication Engineering

GPA: 3.87/4.00 (95.62/100)

Ranking: 1/368

PAPER

Kangyan Wang, Rui Wang, Yutian Feng, **Yue Zheng**, "Vehicle Recognition using Acoustic Sensor Networks in Complex Scenes via Multiple Kernel Sparse Representation", VTC2015-Spring conference W9: International Workshop on Data Analytics for Dynamic Environments, 11-14 May 2015 in Glasgow – Scotland (submitted)

RESEARCH AND PROJECTS

■ Shanghai Undergraduate Innovation Project

Campus Bicycle Identification System

Sept. 2014-Present

Group leader, supervisor: Professor Peng Zhangyou, Professor Wang Rui

- Aimed at designing a real-time anti-theft system through the use of UHF RFID technology
- Identified bicycles by matching the electronic tags attached in the bicycle tires with tags attached in the key chains in the Student Information Database
- Proposed a scheme to realize a far read range of 20 to 30 meters while using UHF reader, circular polarization antennas and passive tags
- Oversaw multi-tag reading and anti-collision algorithm design under complicated environment

■ Competition Projects

Robot Express Delivery System

Mar. 2014-Jul. 2014

Second Prize Winner in 2014 Intel Cup, supervisor: Engineer Li Yufeng

- Programmed under Linux with ROS (robot operating system) as secondary system
- Built a fuzzy model and realized fuzzy algorithm for autonomous navigation and orientation
- Proposed a new image processing approach to Visual Slam for Feature Extraction and Real-Time performance enhancement
- Set up communication protocol and created a website for REDS

Single-Phase AC-DC Converter

Jun. 2013-Sept. 2013

Third prize winner, supervisor: Associate chair Zou Wenxiao, Engineer Xie lei

- Applied MOS full bridge rectifier
- Corrected input signal power factor by using TL3843
- Designed a Buck-Boost circuit and realized over-voltage protection
- Outputted steady 36V from 220v 50Hz input, efficiency: 90%
- Welded the electric circuit

■ Course Projects (Team leader)

3D Virtual Facial Animation

Sept. 2014-Oct. 2014

- Realized 3D face modeling with multiple types of facial expression animation (i.e. happy, angry)
- Realized the operation toward point set coordinate

Two-Way Duplex TDM System

Nov. 2013-Jan. 2014

- Built a TDM transmission system in Gaussian channel
- Applied FPGA to generate clock and sampling signal
- Designed a PCB board and conducted soldering operation

Library Management System Based on C#

Sept. 2013-Dec. 2013

- Set up a SQL Server database to store information about readers and books
- Realized a connection with the database and designed a system for readers and administrator to log in
- Created functions for the input, output, searching and sorting of books
- Allowed the administrator to release news and for readers to leave a message

Digital Thermometer

Apr. 2013-May. 2013

- Actualized temperature collection by using DS18B20
- Implemented an audio feedback system at temperature thresholds with precision of 0.1 °C
- Applied assembly programming

AD Converter (ADC)

Jan. 2013-Feb. 2013

- Generated different quantization levels by adopting precision resistance divider
- Designed a LM339 circuit to implement the comparison between external Vin with the quantitative level
- Displayed the voltage level of Vin through digital tube

DTMF Tone Recognizer

Nov. 2012-Dec. 2012

- Interpreted the frequency characteristics of the audio signal
- Acquired and processed the speech signal
- Realized the recognition of keys through filtering process

AWARDS AND HONORS**Competition Prize**

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| • 2014 Intel Cup Undergraduate Electronic Design Contest | Second Prize(Top 20 in 170) |
| • 2013 National Undergraduate Electronic Design Contest | Third Prize |
| • 2012 Campus Wide Higher Mathematics Competition | Second Prize |
| • 2012 Campus Wide Physics Competition | Second Prize |

Scholarship

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|-------------------------------------|---------------------------------|-----------------|
| • 2013-2014 | National Scholarship | (Top 3 in 368) |
| • 2011-2012 & 2012-2013 & 2013-2014 | Grand Prize Scholarship | (Top 3%) |
| • 2011-2012 & 2012-2013 & 2013-2014 | Excellent Student Award | (Top 3%) |
| • 2011-2012 & 2012-2013 | National Endeavor Fellowship | |
| • 2011-2012 & 2012-2013 | Self-improvement Scholarship | (Top 5%) |
| • 2012-2013 & 2013-2014 | Academic Innovation Scholarship | (Top 5%) |

STANDARDIZED TESTS

TOEFL: 98 (26+27+23+22)

GRE: 316 (149+167+3.5)

ACTIVITIES AND INTERESTS**Volunteer Work**

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| • Blood donation volunteer | April 2014 |
| <i>Sponsor: Shanghai Blood Center</i> | |
| • Guiding service volunteer for Shanghai South Railway Station activities | Summer 2013 |
| <i>Sponsor: Youth Volunteer Association</i> | |

Extracurricular Activities

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|--|-----------------------|
| • High School Math tutor | Sept. 2013-Jan. 2014 |
| • Class Innovation Chairman | Sept. 2012-Oct. 2014 |
| • Member of Shanghai Taekwondo Association | Sept. 2012-Sept. 2013 |
| • Sophomore Student Specialized Course Tutor | Mar. 2012-June 2012 |
| • Dormitory Resident Advisor | Sept. 2011-June 2012 |