WENYI ZHAO

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EDUCATION

Beijing Institute of Technology (BIT) *Aug. 2013 - Present*
B.S. in Electrical and Automation Engineering(English Teaching Program) Beijing, China

- **Overall G.P.A.***(five-scale)*: 3.86/4.0 *(rank: 1/30).*
- **Interested areas**: Digital Signal Processing; Computer Vision; Network Architecture.

RESEARCH EXPERIENCE

QR-code Locating System Oct. 2015 - Present
Advisor: Prof. Senchun Chai *System Engineering Lab, BIT*

- Located and decoded the QR-code in images collected by camera.
- Tested the ability and the limitation of the algorithm on DSP board with C#.
- Co-designed suitable QR code for simple locating issue.

Pending Interest Table(PIT) in Named Data Network(NDN) Dec. 2014 - Oct. 2015
Advisor: Prof. Tian Song *Cyber Security Lab, BIT*

- Implemented an advanced Trie Tree in C++ for prefix matching in PIT of NDN.
- Proposed the idea of Context Processing in order to increase the efficiency of NDN.
- Tested the program on the Linux with 1 million data throughput capacity.

Fingerprint Verification System May. 2014 - Apr. 2015
Advisor: Prof. Hongbin Ma *Adaptive Control Lab, BIT*

- Finished the preprocessing of data image with Gabor filter in OpenCV/C++.
- Extracted the contour and features of fingerprint with edge detection algorithm.
- Tested the program with FVR-2004 database on Raspberry-Pi and linux.

COURSE DESIGN

Isolated-flyback DC-DC Converter Design Dec. 2015

- Simulated and made a DC-DC converter of 20-30V(Ave.24V) unstable input voltage and stable 5V/2A output, with the switching frequency 100kHz.
- Realized the prototype with electronic devices and UC3844 to do the PWM control.

Power Flow Software Design Dec. 2015

- Designed a Python software to calculate the power flow in the normal power system.
- Used Newton-Laphson iteration as the main algorithm for calculation.

8-bits CPU Design Dec. 2015

- Achieved basic architecture of 8-bits CPU on FPGA board with HDL-Verilog.
- Used the FPGA and ISE to debug the program.

WORK EXPERIENCE

Samsung Telecom R&D Center, Handwriting Recognition Lab Feb. 2016
Data Annotation Intern *Beijing, China*

- Annotated data of hand-written equations with the corresponding LaTeX formulas.

LEADERSHIP EXPERIENCE

Science and Technology Leadership Association(STeLA) China Brunch Aug. 2015 - Present
Content Chair *Beijing, China*

- Organized ordinary seminars of China Brunch and recruited new members from Universities.
- Decided the contents of group project with members from other brunches for the next STeLA forum in Okinawa, Japan.

SELECTED COURSES

Mathematics

- Calculus I: 90/100
- Calculus II: 95/100
- Linear Algebra: 100/100
- Functions of Complex Variables & Integral Transformation: 98/100
- Probability & Mathematical Statistics: 100/100
- Electromagnetic Field: 96/100
- Fundamental of Analog Electronic Technology: 99/100
- Control Theory: 100/100

Computer Science

- Computer Technology & Programming: 97/100
- C language Programming: 95/100
- Python Language Programming: 95/100
- Data Structure & Algorithm Design: 99/100

Electrical Engineering

- Signal & System: 88/100
- Electromagnetic Field: 96/100
- Fundamental of Analog Electronic Technology: 99/100
- Control Theory: 100/100
- Power System Analysis: 99/100

SUMMARIZED QUALIFICATION

Operating System	Mac OS, Windows, Linux
Programming	C/C++, HDL-Verilog, Python, C#, Matlab
Language	Chinese*(Native)*, English*(TOEFL 105)*, Japanese*(JLPT N4)*
Scholarships	Once **China National Scholarship**(Top 1%); Thrice First Scholarship of BIT(Top 3%)
Awards	Twice merit student of BIT(Top 1%); first class mathematical modeling award of school(Top 5%)
Hobbies	Traveling, Photographing, Reading