

Department of Electrical Engineering

Xianzhe Zhang

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EDUCATION

Zhejiang University

Hangzhou, China

Bachelor of Engineering in Electronic Science and Technology

September 2011 - June 2015

- Overall GPA: 3.8/4.0; Major GPA: 3.91/4.0
- Outstanding Graduates; Excellent Students Awards for all years

The University of Manchester

Manchester, UK

Introduction to University Life and British Cultural Studies Program

July - August 2013

- Relevant coursework: Skills Development, Target Module Classes, Tutorials, General Language Development;

TOEFL: 110: R30, L29, S23, W28; **GRE:** 325: Q169, V156, AW 3.5

PROFESSIONAL EXPERIENCE

Instanza Network Technology Co., Ltd.

Hangzhou, China

Senior Android Engineer, Supervisor: Ke Yang, Android Team

June 2016 - Present

- Undertook product requirements development, package build and distribution for Soma Messenger on Android, an instant messaging Android APP in 32 languages providing voice and video calls for more than 10 million users worldwide.
- Improved performance of application and user experience by solving problems such as low video call quality, animation performance, low hit rate of cache and memory leaks.
- Collaborated with teams at Huawei, Kanvas and other international companies to complete projects such as HiMe, Kanvas Camera Integration, PIXY Live, and Coco; enhanced technical skills and improved capability for fixing issues of international user profiles.

Qiudao Network Technology Co., Ltd.

Hangzhou, China

Android Engineer, Supervisor: Junli Qin, Android Team

November 2015 - June 2016

- Collaborated on the design and development of Baomingba, a product offering logistical services that improves the organizational and planning processes of conferences, mega events and other activities.
- Participated in the angel investment round for the startup and the acquisition of 2 million users.
- Completed over 20 iterations of the development of the Android client with the technical and design teams.
- Researched Android development about MVC and MVP arch design, custom view, animation and code obfuscation; investigated design patterns, database design, web development.

Intel China Ltd. Beijing Branch

Beijing, China

Software Engineer Intern, Mentor: Wei Tina Zhang, Open-Source Technology Center

July 2014 - May 2015

- Completed the project Multi-Device Window Interaction Technology Based on Android Framework (Multi-Device), which is designed to share sensors and other hardware, as well as software resources, on multiple Android devices by discovering, connecting to and transmitting data to any available terminals.
- Executed all tasks of the project, including designing and implementing the system in source code of Android Open Source Project, and building an independent SDK including JAR, SO, API documents and 3 demos.
- Investigated the architecture of the Android system and software; delved into operating system, computer network, data structure and algorithms; learned Linux shell, makefile, Git and other development tools.
- Videos of demos are available on Youtube: DEMO_0, DEMO_1, DEMO_2.

ACADEMIC RESEARCH

Fabrication Process Improvement of PDMS Semipermeable Membrane for IMS

Sept. - Oct. 2015

Advisor: Prof. Xiaozhi Wang, Institute of Microelectronics and Optoelectronics (IMO), ISEE, ZJU

- Provided an innovative solution of adding photoresist between glass wafer and PDMS semipermeable membrane in spin coating to improve the fabrication process of the membrane, which is used in ion mobility spectrometry (IMS) detectors based on pulsed photoelectric effect ion source.
- Reduced the thickness of the membrane from $30\mu m$ - $50\mu m$ to $5\mu m$ - $10\mu m$ and immensely increased the yield rate of film-coating by optimizing the parameters of the fabrication process.
- Operated the profilometer, the semiconductor device analyzer, and other instruments in the cleanroom.

High Resolution Skin-like Sensor Signal Acquisition and Analysis System

June - August 2015

Advisor: Prof. Xiaozhi Wang, IMO, ISEE, ZJU

- Stabilized the properties of the high resolution skin-like sensor employing the piezoresistive and resistive mechanisms of multi-wall carbon nano tubes (MWCNTs) to imitate touch, pain, thermal and other sensations by determining the parameters of fabrication and packaging the sensor with a layer of PDMS, improving the precision of the sensor data analysis.
- Designed a multi-channel signal amplification and acquisition circuit for the skin-like sensor, developed a system with embedded board of MSP430 and MATLAB to analyze and visualize the data of sensors.
- Cooperated with another team at Zhejiang University to apply this sensor on a five-fingered robotic hand; integrated this system into a portable scale and adapted it for use with other similar sensors.
- Engaged in circuit design, simulation and welding, PCB design, embedded and MATLAB development.

A Web Login System Based on CAPTCHA of Mandarin Voice

April - July 2014

Team Leader, Advisor: Dr. Yu Zhang, ZJU

- Collaborated with two others to develop a vocal CAPTCHA login system to help the disabled use the Internet and received the First Prize in the 2014 National College Student Information Security Contest in recognition.
- Implemented a voice-processing algorithm in MATLAB and integrated it with the Web login system coded in C#; devised a test method of measuring the robustness of the system to ensure the applicability.
- Engaged in the final defense of the contest, the design of the algorithm and MATLAB development.

Pipelined MIPS Processor Implementation on Xilinx FPGA Platform

November - December 2013

Course Project of Lab Work for Digital Systems Design II, ZJU

- Implemented a five-stage pipelined MIPS processor in VHDL on the Xilinx FPGA development platform.
- Delved into computer organization and design, probed into the interrelations of the transistor, logic gate, digital circuit, processor architecture and instruction set by reflecting on the courses of digital and analog circuits.
- Engaged in coding in VHDL, simulation in ModelSim, FPGA development.
- Source code is available on GitHub.

Excellent Engineer Training Program

September 2011 - June 2015

Advisor: Prof. Jianyi Yang, ISEE, ZJU

- Completed required internship and relevant courses aimed at engineering practice.
- Relevant coursework: Engineering Database Analysis & Mobile Communication, Electronic & Information Engineering Training, Introduction to Information and Communication Industry, Summer Internship Processing, Engineering Training Internship, Professional Lectures, Final Term Project.

HONORS & AWARDS

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| • First Prize of the 2014 National College Student Information Security Contest | July 2014 |
| • Outstanding Graduates of Zhejiang University | June 2015 |
| • Outstanding Undergraduate Thesis Award in ZJU | June 2015 |
| • Scholarship for Excellence in Research and Innovation on 2013 - 2014 in ZJU | December 2014 |
| • Consecutive 3 years: Excellent Student Awards in ZJU | 2012, 2013, 2014 |

ACTIVITIES

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| • Led the trombone section of the Zhejiang University Marching Band. | 2012 - 2014 |
| • Served in the office of the ZJU Student Union Secretary, organizing various activities. | 2011 - 2012 |
| • Composed an article containing more than 27,000 words about self-study experience of TOEFL and posted on <u>Zhihu</u> (Quora-like in Chinese). | August 2017 |

SKILLS & INTERESTS

Software Background: proficient in Java, C, MATLAB, Git, Android APP development, Android framework; familiar with Javascript, HTML, Python, MySQL, Linux shell, Web development

Hardware Background: proficient in embedded system development, FPGA, circuit simulation and design; familiar with PCB design, ASIC design; tools: MultiSim, ModelSim, LabVIEW, AD9, Xilinx ISE, Cadence

Technical: Markdown, LaTeX, Sketch, Photoshop, Office Suite

Interests: Trombone, Music, Calligraphy, Swimming, Cycling