Zhicheng Ding

86-15521325233, Email: jdjasonding@163.com
Address: No. 19, Yanqian St., Yanwu Village, Dalingshan Town, Dongguan, Guangdong, China

EDUCATION

South China Normal University **09/2012 –06/2016**

- BE in Electronic Information Engineering, general GPA: 84.7/100 (3.47/5.00), Ranking: 3/38, Major GPA: 87.2/100
- Was conferred onto the "Outstanding Graduate" of the College of Physics and Telecom Engineering (50/630)
- Won the first-class scholarship (1/38) for three consecutive years (2013, 2014, 2015)
- Major courses: Algorithms & Data Structures (92), Microcomputer Principles & Interface Technology (86), Embedded System (90), Java Programming (90), Computer Network (90), Computer Control Technology (94)

WORKING EXPERIENCE

WellAV Technologies Ltd. (http://en.wellav.com/), Huizhou, Guangzhou, China **03/2016 – Present**

- Software Engineer, R&D Department
- Have participated in the development and maintenance of the following products:

  Development of UHD600 **01/2017 –Present**
  - UHD600 (U: Ultra H: High, D: definition) is an advanced integrated receiver decoder based on MRD 5800, developed with American subsidiary corporation, and supports 4K resolution.
  - Take responsibility for the development of compiling system, Web UI, Controller board and SNMP.

  Maintenance of MRD5800 **03/2016-12/2016**
  - MRD5800 (M: modular, R: Receiver, D: Decoder) is an integrated receiver decoder supporting HD video output.
  - Took responsibility for fixing bugs in controlling subsystem with C++.
  - Maintained web UI by using JavaScript, Html5, and CSS.
  - Optimized MRD source code compiling processes with Python and Matlab to shorten the time of building from 27hrs to 5hrs and managed the build files easier.

PUBLICATION & PATENTS

- Publication: Weipeng Hu, Zhihua Li, Zhicheng Ding. Traffic Emergency Guidance Gloves Based on ZigBee. Engineering Technology. 2015, 0 (8); 109-109.
- Utility model patent：Bin Zhou, Zhicheng Ding, Chibin Kong, Changtao Lu, Sailing He. A Field Early-warning Wireless Monitoring System based on Fiber Grating Sensor. Patent Number: ZL. 2015 2 0015530.3. Issued date: 2015.05.20.
- Copyright of Computer Software: Weipeng Hu, Zhicheng Ding. The Fractal Algorithm and Fractal Tree Software based on VC++ MFC. Patent Number: 2015SR156686. Issued date: 2015-08-13.

ACADEMIC EXPERIENCE

Graduation Project: Moving Object Tracking and Detecting based on Deep Learning **06/2015-04/2016**

- Supervisor: Associate Prof. Xiaohui Hu.
- Designed the project scheme, analyzed its feasibility, and evaluated the common moving targets tracking algorithms.
- Established the hardware platform, and coded all modules, like video capturing and processing, moving objects tracking and detecting based on deep learning.
- Debugged the whole system on three main traffic roads, and finally established demo environment for final defense.
- Proposed an algorithm, Moving Objects Tracking and Detecting based on Deep Learning, which shortened computing time by 9.6% and increase the recognition accuracy by 17.2%, comparing to Lucas-Kanade Optical Flow algorithm.

College Students' Innovation and Entrepreneurship Training Program

Project1: Study on the Networking of Wireless Sensor Networks in Intelligent Labs **06/2014-06/2015**

- Purpose: to study how to establish a wireless network based on ZigBee in Smart Labs to build an intelligent Internet of Things system integrated lights, fans, air-conditions, fire alarms, computers, and experimental apparatus.
- Mainly took responsible for embedded software programming of ZigBee, and make a GUI to control lab apparatus
- Successfully applied utility patent which has been listed above as the second author.

Project2: Study on the Impact of LED on the Different Functional Zones' Vitality of Human Brains 06/2013-06/2015

- Purpose: to study the impact of different colors of LEDs on the emotion and learning ability of human beings, and to explore the therapeutic method of corresponding psychological illness.
- Mainly took charge of developing embedded software programming of color-changing LED and GUI for controlling colors, and designing the related algorithms for psychology and biology.
- Experienced the whole process of a research that includes scheme design and analysis, project application, project schedule preparation, software and hardware development, debugging and final defense.
- The project was awarded as provincial level innovation and entrepreneurship project.

COMPETITIONS

Mathematical Contest in Modeling (MCM), Honorable Mention **02/2015**

- Topic: PROBLEM A: Eradicating Ebola; implemented algorithms with Matlab.
- Built the model for viral transmission and the address selection of vaccine warehouse, and wrote the paper concerning the software part in English.

South China Normal University Challenge Cup, the third place **12/2015**

- Topic: Portable Set – Remote Medical System; the system timely monitored patients' body conditions, and automatic alarming under severe circumstances.
- Mainly developed the wireless controller with ZigBee, and partly implemented the smart medical consulting assistant with Python.

"Lanqiao" Cup National Software & Information Technology Professionals Competition (C/C++ Programming), Guangdong Area, the third place **10/2014**

- Solved 20 programming problems by using depth-first search, breadth-first search, Dijkstra, monotonic chain algorithm, sort algorithms and BFPRT.

The 6th NEXTORCH Future Flashlight Design Competition, the third place **05/2014**

- Mainly took charge of coding the embedded system based on Bluetooth wireless module with C and C++.
- The flashlight could display different colors of light, and has warning function.

2014 Electronic Design Competition of Guangdong, the third place **12/2013**

- Topic: Internet of Things – Intelligent Transportation Guidance Gloves.
- Mainly built the wireless network with ZigBee, developed the embedded system and designed the GUI.
- The traffic light switches according to traffic policemen' gestures, which enables drivers to know the traffic conditions clearly.
- Published one paper mentioned above, and got deep understanding of Raspberry Pi development.

Electronic Design Competition of South China Normal University, the third place **05/2013**

- Topic: Intelligent Controlling System.
- Established the intelligent elevator's analog system which could estimate the fastest solution of dispersing passengers according to floors being selected, the number of riders, and priority.
- Mainly developed the embedded system (software part), and designed GUI for monitoring.

INTERNSHIPS

Software Engineer, Ericsson Mobile Data Applications Technology Research & Development (Guangzhou) Company **07/2015–12/2015**

- Learned network management system fundamentals of CDMA communication network.
- Developed Test-Automation system based on deep learning with other two members, analyzed the programming language, extension of the system, and tested the system manually for great understanding.
- Coded the test report generator based on deep learning, and the test report included: which line might cause the error; what improvements might fix the issue.
- Wrote the code, verified the system which has saved almost 10000 man-hours by now, and enhanced the system with the feedback from the test team.

OTHER AWARDS & CERTIFICATES

- National Embedded System Engineering Certificate awarded by National Embedded Training Center 02/2015
- Outstanding Student Leader & Scholarship 03/2014
- National Computer Certificate Level 2 & 3 09/2013

OTHER INFORMATION

- Programming: C/C++ (advanced), Python (advanced), Linux (advanced), Matlab(fluent)
- Software: Git (advanced), Scons (advanced), Makefile (fluent), Markdown (advanced), Latex (fluent)
- Others: analog and digit circuit, high-proficiency circuit, algorithms and data structures, fundamentals of compiling
- Voluntary Computer Maintenance and Repair & Member of Computer Association
- Voluntary Primary School Teacher, Guangzhou
- Interests: tennis, fitness, camping, running, etc.