CHEN LIU

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EDUCATION

Master of Science   Electrical and Computer Engineering (GPA: 3.8/4.0)   *Feb. 2015 – Dec. 2016*
- University of Delaware, Newark, DE

Bachelor of Science   Electrical Engineering (GPA: 3.6/4.0)   *Sept. 2010 – Jun. 2014*
- China University of Mining & Technology (CUMT), Xuzhou, Jiangsu

EXPERIENCE

Electrical Engineer - AlphaSense Inc.   *Oct. 2016 – Present*
- Defined environmental test specification and led the testing, data acquisition and provided data-driven recommendations
- Implemented multi-functional deliverable products including XYZ gantry stage, DLP based 3D printer and Micro-Focus X-ray inspection system
- Experienced with modern robot arm control systems such as ABB-IRB140, UR-10 and Keba PLC robotics
- Designed, layout, fabricated and tested printed circuit boards (PCB) according to the system requirement
- Built both three-phases AC motor and Stepper motor driven integrity systems using KollMorgen and Nema motor

Software Engineer - B&WTek Inc.   *Jun. 2016 – Sept. 2016*
- Maintained embedded system for portable spectrometer, laser and handheld Raman device
- Developed test program and fixed bugs on Linux, Android and Windows CE platform for new product
- Documented the instrumental software and presented to non-technical stakeholders

Dispatch Coordinator – State Grid Corporation of China   *Aug. 2014 – Jan. 2015*
- Supervised for the power transmission control room
- Helped with the recovery of three power system failure accidents

PROJECTS

Robot Arm   *Six-Axis Stepper Motor Based Robot & Controller*
- Assembled aluminum based 6 axis robot arm with Nema stepper motor with the payload over 3 lbs
- Added limit switches by updating the MCU from 8 bits to 32 bits
- Calculated kinematic model and refined the robot operating software

3D Printing Metal Alloy   *Low-cost material based gradient metal alloy fabrication*
- Designed and established DLP based 3D gradient metal mesh printing system
- Operated print part high temperature sintering process using tube furnace equipment
- Improved the quality of condense part by adjusting the printing slurry ratio

Linux Architecture   *Arch Linux Kernel Build and Raspberry Pi Kernel Module Build with GPIO*
- Explored Linux construction on the kernel module level to write the basic drivers for Arch Linux system
- Completed general purpose input and output (GPIO) controls for seven segment displays on Raspberry Pi by writing the kernel file for Raspbian operating system

Software Design Documents   *Home Health Monitor System and TryEat Mobile App*
- Introduced a MVC model and built a home health monitoring system to simplify the healthcare system and reduce the maintenance budget
- Analyzed current market requirements and published the restaurant social app TryEat beta

SKILLS

- **Core Strengths:** Java, C++, SQL, Linux, LabView, Altium Designer, Microsoft Office
- **Techniques:** Eclipse, Visual Studio, Oscilloscope, Embedded System, Serial Communications

AWARDS AND CERTIFICATIONS

- United States Cybersecurity Boot Camp (USCC)   *2015*
- RoboCup China Open, 3rd prize on robot tour competition   *2013*