**CHEN LIU**

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**Objectives**

Proven fast learner, self-starter and team player. Seeking a full-time software engineer position that will combine my knowledge in mathematics, programming and research.

**Technical Skills**

* Extensive hands-on experiences with **OOP** and **Core Java**.
* Ad-Hoc projects with server side **Spring Boot** framework in **J2EE** along with **JUnit Testing** (Integration/ Functional), **Hibernate** (JPA/ Session/ Cache) and **Tomcat** container.
* Working experiences with **MVC** and **MVVM** architecture on desktop application development.
* Strong foundations in **Linux** (Arch) architecture and **kernel** build process with **bash** script.
* Hands-on experiences with **RDBMS** and **NoSQL** such as MySQL, Oracle and Mongo DB.
* Solid background in **Cybersecurity** skills including penetration test, reverse engineering.
* Knowledge and hands-on skills with web services **RESTful** API, third party **OAuth**.
* Experiences with front-end techniques including **JavaScript**, **HTML**, **CSS** and **Angular** framework.
* Experiences with data **cryptography** algorithms including RAS, AES.
* Knowledge and experiences of **Agile** development methodology and related tools.
* Proficiency in electrical research and development tools such as **LabView**, **SolidWorks**, **Altium** **Designer**.
* Experiences with **Embedded** **Microprocess** programming for robotics and related fields.
* In-depth **Communication protocol** and **Signal processing** knowledge between software and hardware including RS232, RS485, EtherCat, etc.
* Comfortable with working in a **Cross-site, Cross-team** environment.

**Experience**

**Research Engineer - AlphaSense Inc.**  *Oct. 2016 – Present*

* Implemented forward and inverse robotic kinematic models in six axis robot arm control app
* Built STL, Gerber file phasing API for GP 3D printer and PCB 3D printer
* Refined calculation algorithm for NDE sensor and improved the precision of measurement data
* Enhanced UI performance for current electrical devices application rely on MVVM pattern
* Defined environmental test specification and led the testing, data acquisition (DAQ) and provided data-driven recommendations
* Designed, layout, fabricated and tested printed circuit boards (PCB) according to system requirement
* Experienced with Robot and Cobot control system including ABB-IRB140, UR-10 and Keba Robotic

**Software Engineer - B&WTek Inc.** *Jun. 2016 – Sept. 2016*

* Designed client application for spectrometer devices using Java and C#
* Developed test programs and fixed bugs on Linux, Android and Windows CE platform for new products

**Instructor - UDel K-12 Engineering**  *Jun. 2015 – Sept. 2015*

* Proposed strategies and led students in Python and Raspberry Pi based projects

**Dispatch Coordinator – State Grid Corporation of China**  *Aug. 2014 – Jan. 2015*

* Supervised power transmission control room

**Education**

University of Delaware, Newark, DE *Feb. 2015 – Dec. 2016*

* Master of Science in Electrical and Computer Engineering (GPA: 3.8/4.0)

China University of Mining & Technology (CUMT), Xuzhou, Jiangsu *Sept. 2010 – Jun. 2014*

* Bachelor of Science in Electrical Engineering (GPA: 3.6/4.0)