Jerry Chen

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EDUCATION

University of Illinois at Urbana-Champaign   *Anticipated May 2019*
Bachelor of Science, Computer Engineering   *Cumulative GPA: 3.30/4.00*
Related Course Work: Computer Systems Engineering, Computer Security I, Computer Security II, Computer Security Lab, Algorithms, Wireless Networks, Digital Systems Laboratory, Data Structures

WORK EXPERIENCE

State Farm   *Champaign, IL*
Software Development Intern   *May 2018 – Present*
- Built the foundations of a web app's front and back-end architecture in Python to streamline Weekly Business Reviews
- Designed the application's architecture and requirements according to the project scope and end users.
- Analyzed and visualized web and mobile data, gathered in Hadoop warehouse, on a user interface.
- Demonstrated the ability to create a new marketing idea, for an existing problem and presented the idea for 'Live Healthy and Save' with 4 teammates.

Fluid Management   *Wheeling, IL*
Software Engineer Intern   *May 2017 – August 2017*
- Reverse engineered over 30,000 lines of source code and communicated with the Software Team to create the foundations of a product's architectural diagram and 320 product specifications in preparation for product shipment.
- Conducted a sprint of empirical integration testing for the product's firmware, server, and client.

PROJECTS

Hermes Network – ongoing   *https://github.com/jerr-chen/p2p_messaging_network*
- Designed the architecture structuring the network's server nodes, bootstrap nodes, and user to user communication.
- Designed the protocol for joining/leaving the network and message structure for transmission.

Operating System   *https://github.com/jerr-chen/Linux-Base-Operating-System*
- Communicated and collaborated as a team of 3 to design and implement an operating system which supports paging, multiple terminals, system calls, and interrupts.
- Implemented a read-only filesystem and various drivers with open, read, and close system call functionality.
- Functionalized the programmable interrupt chip to manage asynchronous interrupts such as RTC and keyboard.

Faculty Fighters Arcade   *https://github.com/jerr-chen/faculty_fighters*
- Designed hardware modules in System Verilog for a player versus player fighter game.
- Designed collision logic between players and projectiles using hitboxes and a single contact state machine.
- Utilized sprite ROMs, palettes, and a frame buffer for character, projectile, and background graphics.

Twitter Writes the News   *https://github.com/jerr-chen/twitter-writes-the-news*
- Created a word generator using Markov Chains to generate facetious articles related to keywords in real-time tweets.

LEADERSHIP/ACTIVITIES

System Forensics Research   *Urbana-Champaign, IL*
Linux Provenance Module Exploration   *September 2017 – December 2017*
- Configured and benchmarked target applications for customized dataset to explore autonomous attack reconstruction.
- Created regex models that extract target events from dataset to understand applicant semantic information.
- Proved that application log content contains sufficient data to automate the reconstruction process.

Association of Data Science and Analytics (ADSA)   *Urbana-Champaign, IL*
Workshop Committee   *September 2016 – January 2018*
- Expanded my understanding of programming languages including Python by attending and teaching workshops.
- Prepared and Presented PowerPoints and code samples for an Advanced Python and Introduction to Hadoop Workshops.

SKILLS

Programming Languages: Proficient: C, C++, Python | Prior Experience: SystemVerilog, Java, x86-GAS, HTML/CSS
Technical: Linux, GDB, Object Oriented, Visual Studio, Agile
Languages: English and Fujianese