Jerry Chen

jchen238@illinois.edu | 309-756-8215 | Champaign, IL   *GitHub*: https://github.com/jerr-chen

EDUCATION

University of Illinois at Urbana-Champaign   *Anticipated May 2019*
Bachelor of Science, Computer Engineering   *Cumulative GPA: 3.25/4.00*
Related Course Work: Computer Systems, Computer Security (I, II, and Lab), Algorithms, Wireless Networks, Digital Systems Laboratory, Parallel Computing (Fall 2018), Computer Networks Laboratory (Fall 2018)

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 imagine new marketing ideas, 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 | C++ – 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 | C, x86   *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 | SystemVerilog   *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 | Python   *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*
- Installed applications commonly used for browsing the internet, editing/reading files, and downloading content.
- Configured the applications for customized activity logging to explore autonomous attack reconstruction.
- Benchmarked application run times with and without the logging configurations.
- Concluded that malware activities can be reconstructed and the benefits of logging outweigh the 5% increase run time.

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: C, C++, Python, SystemVerilog, Java, x86-GAS, HTML/CSS, SQL
Technical: Linux, Object Oriented, Agile   **Languages:** English and Fujianese