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*
- Designed the web architecture and requirements to streamline Weekly Business Reviews according to the project scope, end users, and stakeholders.
- Implemented the web server's front and back-end architecture in Python that automates the analysis of the WBR.
- Analyzed and visualized web and mobile data gathered in Hadoop warehouse on a user interface.

FLUID MANAGEMENT   *Wheeling, IL*
Software Engineer Intern   *May 2017 – August 2017*
- Reverse engineered 30,000 lines of source code and communicated with the Software Team to create the foundations of a product's architectural diagram and 300+ product specifications using Enterprise Architecture.
- Conducted a sprint of integration testing for the product's firmware, server, and client; documented bugs and recreation.

PROJECTS

PEER-TO-PEER-MESSAGING - 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, scheduling, 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 GAME   *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*
- Implemented 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: C, C++, Python, x86-GAS   **Languages:** English and Fujianese
Technical: Linux, GDB, Object Oriented, Visual Studio, Agile