

# Jerry Chen

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Website: <https://jerr-chen.github.io/>

GitHub: <https://github.com/jerr-chen>

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## EDUCATION

### UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Bachelor of Science, Computer Engineering

**Related Course Work:** Computer Systems Engineering, Computer Security I, Computer Security II, Computer Security Lab, Algorithms, Wireless Networks, Digital Systems Laboratory, Data Structures

Anticipated May 2019

Cumulative GPA: 3.30/4.00

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## WORK EXPERIENCE

### STATE FARM

Software Development Intern

Champaign, IL

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

Software Engineer Intern

Wheeling, IL

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.

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## PROJECTS

### PEER-TO-PEER-MESSAGING - ongoing

[https://github.com/jerr-chen/p2p\\_messaging\\_network](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](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.

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## LEADERSHIP/ACTIVITIES

### SYSTEM FORENSICS RESEARCH

Linux Provenance Module Exploration

Urbana-Champaign, IL

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)

Workshop Committee

Urbana-Champaign, IL

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.

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## SKILLS

**Programming Languages:** C, C++, Python, x86-GAS

**Languages:** English and Fujianese

**Technical:** Linux, GDB, Object Oriented, Visual Studio, Agile