Aaron **Lichtman**

SOFTWARE ENGINEERING · CYBERSECURITY

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Education

University of Illinois at Urbana-Champaign *Champaign, IL*
B.S. IN COMPUTER SCIENCE AND LINGUISTICS *Expected May 2020*

- GPA: 3.67/4.00
- Dean's List: 2017, 2018
- Coursework: Discrete/Data Structures, Computer Architecture, Systems Programming, Computational Linguistics, Computer Security, Digital Forensics.

Experience

Developer — Plagiarism Detection Software *Champaign, IL*
COURSE INFRASTRUCTURE TEAM — UNIVERSITY OF ILLINOIS — CS DEPARTMENT *Jan. 2018 - Present*

- Developing plagiarism detection software that applies machine learning to code metrics and behavioral indicators.
- Analyzing natural language and parsing source code using the ANTLR and NLTK libraries.
- Creating behavioral profiles of each student to detect outlier behaviors.
- Researching transferability of key lessons to problems of intrusion and malware detection.

iOS Software Engineering Intern *Boston, MA*
iOS CORE TEAM — WAYFAIR *Summer 2018*

- Worked on a team developing an iMessage extension in Swift and integrating it into the Wayfair iOS app.
- Allowed over 200,000 daily Wayfair customers to share furniture recommendations.
- Addressed challenging iOS security issues, balancing customer experience and data security.
- Led the Community Coding Day event and made a curriculum to teach 200+ middle schoolers basic CS concepts.

Lab Instructor — Java Programming Fundamentals *Champaign, IL*
UNIVERSITY OF ILLINOIS — CS DEPARTMENT *Aug. 2017 - Dec. 2017*

- Taught fundamentals of Java programming, algorithm analysis, and data structures in weekly two-hour lab sections.
- Worked one-on-one with students during office hours, and moderated the course forum.
- Helped struggling students succeed in the course and develop a deeper understanding of computer science.

Open Source Software

Stronghold — macOS Security Configuration Tool *Champaign, IL*
DEVELOPER-FRIENDLY COMMAND LINE UTILITY *2018*

- Developed a command line interface that guides users through step-by-step secure configuration for macOS.
- Secured the workstations of more than 14,000 mac users and earned over 400 stars on GitHub.
- Gained familiarity with macOS security architecture.

Bitvision — Machine Learning-based Trading Platform *Champaign, IL*
LINGUISTIC ANALYSIS AND MACHINE LEARNING APPLIED TO BITCOIN PRICE FORECASTING *2018*

- Implemented a text analysis pipeline to analyze news headline sentiment for an automated trading algorithm.
- Designed and built a command line user interface using Blessed.js.
- Worked with a development partner to integrate the Python backend with the Javascript frontend.

Typesense — Linguistic Analysis Tool *Champaign, IL*
CHROME EXTENSION TO MEASURE TRENDS IN SENTIMENT OF MESSENGER CONVERSATIONS *2018*

- Designed a system to help patients with autism understand the emotions of others when talking online.
- Worked with a team to build a prototype that won "Best Healthcare-related Hack" at HackIllinois 2018.
- Wrote a rolling window algorithm that analyzes change in sentiment over a set of messages using the VADER library.

Skills

Proficient Python, C, C++, Swift, Java (incl. Android), Git, JetBrains IDEs, XCode.
Familiar HTML, CSS, Node.js, Sketch.