# Kyle Franke

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## Education

**Binghamton University**, State University of New York (Double Major) **May 2019 expected**
**Overall GPA: 3.70/4.00 | Dean's List: Watson & Harpur, Spring 2016 – Present**
**Watson School of Engineering at Binghamton,** Bachelor of Science in Computer Science
**Major GPA: 3.87/4.00**
**Harpur College of Arts and Sciences at Binghamton,** Bachelor of Arts in Mathematical Sciences
**Major GPA: 3.93/4.00**

## Technical Skills

**Strong languages:** Java Enterprise, Python, C++, C, X-86 Assembly, LaTeX
**Software and OS:** Eclipse, JUnit, Ansible, vim, JIRA, Jenkins, VirtualBox, IDLE, Git, Windows, centOS and Ubuntu
**Additional:** Agile, Swing, Clover, JavaScript, HTML/CSS, digital circuit design, number & set theory, multithreading

## Professional Experience

**Lockheed Martin, Software Engineering Intern** Owego, NY, **May 2018 – August 2018**
-Worked with two mid-size Agile teams on a classified project on algorithms, automation of tasks, and integration
-Analyzed algorithms in Java and found inefficiencies to solve existing problems and reduce program complexity
-Saved developer time by designing and developing a system to automatically test software builds overnight
-Made problem solving easier by writing software to save, analyze, and group internal errors in runtime logs
-Cooperated with system engineers and read their problem reports to find and address issues in our code
-Engaged in code reviews and SCRUMs with clients, peers, and team leads through Agile to improve productivity

**Shute Engineering, Intern** Goshen, NY, **May 2016 – August 2016**
-Fixed, optimized, and updated the software of old and previously broken or unusable PCs in the office
-Organized a common file network between office computers so important documents could be accessed anywhere
-Wrote Python scripts to automate the verification of spreadsheets, device statuses, and document structure

## Projects *[available on my GitHub; see top of document]*

**Super Sweet File System (ssfs)** Binghamton, NY, **April 2018 – May 2018**
-Architected, implemented, and tested a virtual file system written in C++ with three other peers
-Wrote high- and low-level "write" and "read" functions that correctly processed several gigabytes of data at once
-Stored and processed data efficiently at character level (rather than bit-level) as an added challenge
-Collaborated with peers and established version control using Git, presented to an audience upon completion

**Xyphos** Montgomery, NY, **March 2017 – August 2017**
-Coded an original Python program inspired by HBO's "Silicon Valley" that compresses and decompresses text files
-Manipulated text files using string methods and hash maps to compress files by as much as 25% in under a minute

**Binary Xyphos** Binghamton, NY, **May 2018 – September 2018**
-Developed a second iteration of Xyphos in C with a completely new design to improve it in several ways
-Used a combination of Huffman Coding and the LZ77 method to compress files by over 50% of their original size

## Leadership and Volunteer Experience

**LeetCode, Content Creator and Participant,** Binghamton, NY **January 2018 – Present**
**-**Contributing several DS/A problems, solutions, and test cases to a free competitive coding/interview prep website
-Hired by the CEO, Winston Tang, in August of 2018 to continue to contribute on a consistent basis
-Ranked ~95$^{th}$ percentile on overall problem completion/accuracy, ~80$^{th}$ percentile on weekly contest leaderboards

**Upsilon Pi Epsilon, Tutoring Coordinator of Iota Chapter,** Binghamton, NY **August 2017 – Present**
-Tutoring students in courses such as Computer Systems I & II, Data Structures, Combinatorics, and Calculus I-III
-Leading other tutors to optimize efforts as the officer in charge of tutoring, effective March 2018

**HACK BU, Organizer,** Binghamton, NY **January 2016 – Present**
-Creating and delivering weekly presentations on useful technology and organizing semesterly hackathons