

Kyle Franke

51 Chestnut St, Binghamton, NY 13905 • (845) 522-3208 • kfranke1@binghamton.edu • <https://grawlives.github.io/>

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
- Achieved results comparable to open-source compressors like Brotli and Zstandard in fractions of a second

Leadership and Volunteer Experience

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

LeetCode, Problem Contributor and Participant, Binghamton, NY

January 2018 – Present

- Contributing several DS/A problems, solutions, and test cases to a free competitive coding/interview prep site
- Ranked ~95th percentile on overall problem completion/accuracy, ~80th percentile on weekly contest leaderboards

HACK BU, Organizer, Binghamton, NY

January 2016 – Present

- Attending weekly meetings, helping fellow members with their code, and organizing semesterly hackathons