Hank Breen

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EDUCATION

Miami University Oxford, OH
Bachelor of Science in Computer Science *Aug. 2021 – May 2025*

- Member of University Honors College
- GPA: 3.71
- Relevant Coursework: Operating Systems, Algorithms, Data Structures, Object Oriented Programming, Calculus 2, Discrete Mathematics

EXPERIENCE

National Institutes of Health May 2022 – August 2023
Summer Research Intern *Bethesda, MD*

- Worked in the microbiology research lab of Dr. Jenny Hinshaw
- Modified existing visualization programs to better enable cellular animation of Dynamin Cryo-EM structures using ChimeraX
- Processed raw Cryo-EM data through cryoSPARC workflow methods in order to create high resolution protein structures for structural analysis
- Applied concurrent processing to efficiently improve resolution of existing Dynamin protein models

Pool Personnel May 2017 – August 2021
Certified Pool Operator *Potomac, MD*

- Maintained a safe and orderly pool environment for a community of patrons
- Monitored pool chemical levels and water flow to create a hygienic swimming environment
- Assisted manager in overseeing rest of pool staff on a day to day basis

PROJECTS

Custom Linux Shell | *C++* March 2023

- Developed an internal Linux shell which ran inside an IDE console
- Employed multi-threading techniques to concurrently process commands from a web server
- Utilized boost.Asio library to streamline data pulls from a web server for multi-threading implementation

Array-List Word Counter | *Java* April 2023

- Developed program to count occurrences of words in text files
- Returns data on word frequency from multiple text files at once
- Utilized Array-List qualities to calculate accurate word data

Address Sorter | *Java* April 2023

- Created program to sort list of addresses by last name
- Developed custom singly linked list class with merge sort implementation

TECHNICAL SKILLS

Languages: Java, C++, SQL, JavaScript, HTML/CSS, Python, R, LaTeX
Frameworks: Node.js, JUnit, Bootstrap, React
Developer Tools: Git, VS Code, Visual Studio, IntelliJ, Eclipse

ACHIEVEMENTS AND INTERESTS

- Eagle Scout, Boy Scouts of America
- Skiing, Camping, Economics, Travel