

Hank Breen

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EDUCATION

Miami University

Aug. 2021 – May 2025

Bachelor of Science in Computer Science

Oxford, OH

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

TECHNICAL SKILLS

Languages: Java, C++, SQL, JavaScript ES6, HTML 5, CSS, Python 3, R, LaTeX

Frameworks: Node.js, JUnit, Bootstrap, React

Developer Tools: Git, VS Code, Visual Studio, IntelliJ, Eclipse

EXPERIENCE

National Institutes of Health

May 2022 – August 2023

Summer Research Intern

Bethesda, MD

- Worked in the microbiology research lab of Dr. Jenny Hinshaw, participating in and running weekly lab meetings
- 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++, boost.Asio

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

ACHIEVEMENTS AND INTERESTS

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