

Hayden Roeder

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EDUCATION

Binghamton University, State University of New York, The Thomas J. Watson School of Engineering and Applied Science

Bachelor of Science in Computer Science

Expected May 2021

Major GPA: 3.82/4.00 | Overall GPA: 3.80/4.00 | Dean's List: Fall 2017 - Present

Canandaigua Academy

June 2017

High School Diploma

- Rensselaer Medalist (Top Math/Science student in the graduating class)
- Excellence in Math and Science Award
- NYS S.T.E.M Incentive Program Award

TECHNICAL SKILLS

Languages: C++, C, Java, Python, C#, HTML, CSS, JavaScript, R, X-86 Assembly

Software and OS: Eclipse, Visual Studio Code, Atom, R Studio Git, Logisim, Linux, Vim

Additional: React, Excel/VBA, Basic Circuit Design

PROJECT EXPERIENCE

Online Portfolio: <https://haydenroeder1.github.io/>

React Weather App | Binghamton, NY

May 2019

- Created a React webpage to get the weather of any given location by dropping a Google Maps pin or typing the location name
- Obtained weather data as a JSON file using the OpenWeatherMap API and outputted relevant data to a React component
- Used the Google Maps API to retrieve latitude and longitude of user-entered cities, as well as an embedded map input

C++ Solar System Explorer | Binghamton, NY

May 2019

- Combined class labs involving various data structures and algorithms to map and traverse a simulated solar system
- Implemented the A* pathfinding algorithm in C++ in order to find the shortest path between two planets

C# Web Scraper | Binghamton, NY

March 2019

- Implemented a UI in Microsoft Visual Studio C# to automatically download and store a question bank from online practice quizzes by parsing HTML with the HTMLAgilityPack library

HackBU Submission | Binghamton, NY

February 2019

- Participated on a team of three as the lead programmer to develop a text-based game to run in a Linux terminal
- Planned and developed a class structure in C++ to handle all of the weapons and items in the game and created a modular prompt system to speed up the programming of dialog in the game

Java Assembler and Computer Simulator | Binghamton, NY

May 2018

- Used the Eclipse IDE to develop a computer simulator with visualized memory and program counters to assemble and run basic assembly code

- Worked as the backend developer to program functions to assemble and run the code with basic error checking

Lunar Lander Redesign | Binghamton, NY

December 2017

- Created a 2D clone of a Lunar Lander in Python using the Pygame library
- Worked as the backend developer on a team of three and created a physics system, randomized terrain generator, and input manager for the game

PROFESSIONAL EXPERIENCE

NYS Parks, Recreation, and Historic Preservation | Canandaigua, NY

May 2018 – August 2019

Park Aide I at Canandaigua Lake State Marine Park

- Recorded park attendance records, operated the entrance gate, resolved customer complaints, and maintained the upkeep of the park

The Company Store | Canandaigua, NY

August 2015 – January 2019

Stock Clerk

- Stocked drinks and groceries in the store, performed general store maintenance, and trained new employees for the position.

EXTRACURRICULAR ACTIVITIES

HackBU | Binghamton, NY

February 2019 - Present

Member

- Participated in the annual Binghamton hackathon and worked on a team of three to develop a text-based C++ game
- Attended in weekly programming workshops to learn various technologies and concepts outside of Binghamton's standard computer science curriculum

Engineers without Borders | Binghamton, NY

September 2018 – May 2019

Member

- Volunteered in events to inspire children in the Binghamton area to learn about the field of engineering
- Worked on a project to construct a handicap-accessible ramp at a local animal sanctuary