Brian Harnish

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Objective: Obtain a position in Information Technology/Computer Science that provides ample opportunity to further develop problem-solving skills and advance my abilities in the computer science field.

Education: University of Mary Washington, Fredericksburg, VA
B.S. in Computer Science, Spring 2021
Minor in Business Administration, Spring 2021
Overall GPA: 3.45
Major GPA: 3.85

Work Experience:

May 2020 to March 2021 - Software Engineering Intern at Perigean

- Created admin web application to manage users and display analytics using Angular and CouchDB.
- Communicated daily about the current state of issues and developments with multiple members of the team.
- Deployed program using AWS EC2 and Lambda.
- Created application that converted incoming data from JSON files to context maps, these maps consisted of nodes, links, and triples.
- Created application that converts oncoming pictures into PNG files.
- Researched how machine learning could be implemented into the current systems.
- Communicated daily with a team of people led by a senior software developer

September 2019 to December 2019 - Research Assistant, Computer Science Labs – UMW

- Tutored a class of my peers on C programming.
- Collaborated with a team to research machine learning.
- Gathered course material for instructors.

September 2018 to May 2021 – Lifeguard – UMW

- Monitored pool activity.
- Measured and maintained pool chemicals as the pool operator.

March 2017 to August 2019 - Sudley Club Lifeguard/Assistant Manager/Swim Coach

- Monitored pool activity.
- Measured and maintained pool chemicals as the pool operator.
- Managed a team of five employees during shifts.
- Opened and closed the pool.
- Managed cash register.
- Coached up to twelve children between the ages of two and fourteen.

Honors and Activities:

- Dean's List
- University of Mary Washington Varsity Swim Team
- Two-time Junior Nationals Qualifier for swimming
- Computer Science Club
- Computer science tutor for twenty people
- Instructor for high schoolers on the fundamentals of machine learning in Python.

Projects and Technical Skills:

- Known programming languages: Java, Python, Rust, C, JavaScript, Typescript, AngularJS, HTML, CSS
- Proficient with PostgreSQL, Node.js/npm. Next.js, CouchDB
- Experience with Cloud computing services AWS and IBM cloud
- Created a probability based, logic driven vacuum cleaner (PYTHON)
- Created an A* search program (PYTHON)
- Recreated basic operating system (C)
- Created a computer/memory simulation of a computer (C/ARM Assembly)
- Recreated scheduler algorithms (C)
- Recreated Zork I, II, and III (JAVA)
- Created a Derivative Calculator (JAVA)
- Created personal Website: https://main.d2wj8khghvtsmt.amplifyapp.com/#/

Related Coursework:

- CPSC 405: Operating Systems
- CPSC 340: Data Structures and Algorithms (C++)
- CPSC 326: Theory of Computation
- CPSC 415: Artificial Intelligence (Python)
- CPSC 419: Machine Learning (Python)
- CPSC 305: Comp. Systems and Architecture (C, ARM Assembly, Python)
- CPSC 350: Applications of Data Bases (PostgreSQL, JavaScript, frontend/backend developing)
- CPSC 240: Object Oriented Design & Analysis (Java)
- CPSC 225: Software Development Tools
- Math 151: Calculus 1