

EDUCATION

University of Maryland, Baltimore County, Baltimore, MD

Expected May 2021

- Bachelor of Science in Computer Science

TECHNICAL SKILLS

Programing

Python, C, C++, C#, Java, SQL, Shell Scripting, Assembly

Web Development

HTML, CSS, PHP, JavaScript, Bootstrap, jQuery, NodeJS, Angular, Rails, React, Gatsby

Software

CLion, PuTTY, AutoCAD, Cura, Proxmox, VMWare Suite, Docker, Eclipse, Git, Microsoft Office (Word, Excel, PowerPoint), Android Studio, Google Cloud, Arduino

Operating Systems

Windows XP/Vista/7/8.1/10, RHEL/Ubuntu/Unix, FreeBSD, Windows Server 2008 R2 & 2012

PROJECTS

FORTH-Like Interpreter

Fall 2018

- Worked to implement an interpreter for a FORTH like programming language in C++
- Developed a lexical parser for interpreting various characters and commands from a text file, placing them in appropriate data structures, and then handling those structures as commands are executed
- Compiled project into a .deb package for easier use on personal server

Language Grammar Design

Fall 2018

- Designed a context free grammar to follow a given set of rules
- Created a discrete finite automaton based on this grammar and then implemented it in C++ to test large groups of data based on these rules

QuadTrees

Fall 2018

- Created an implementation of the quadtree tree data structure
- Used quadtrees to create a playable version of Conway's Game of Life

APRS Packet Generator

Winter 2019

- Developed a Python 3 program on a Raspberry Pi to read data from a weather station and interpret it into meaningful, user understandable information
- Created a system for encoding data into audio packets to be delivered using a ham radio and then published onto the internet, including a personal website

WORK EXPERIENCE

Jewish Community Center, *Aquatics Instructor*, Owings Mills, MD

July 2017 – Present

- Worked directly with members across multiple age groups
- Taught a variety of American Red Cross programs and classes
- Led the ongoing training and skill development of staff (making sure staff is certified up to current standards)

JCC, *Lifeguard & Shift Supervisor*, Owings Mills, MD

May 2017 – Present

- Maintained a safe and welcoming environment in all aquatic areas
- Conducted routine maintenance and pool operation tasks
- Created a rotation/work schedule for co-workers to follow

UMBC Chemistry Dept., *Lab Assistant*, Baltimore, MD

September 2018 - Present

- Design models/parts to be rapidly prototyped
- Continued maintenance and calibration of lab 3D Printer
- Calculated printing costs and optimal interior design of 3D objects using Cura and Slic3r

RELEVANT ORGANIZATIONS

UMBC Student Government Association, Communications Team Member

Fall 2017 – Present

- Collaborated with team members to advertise various SGA events and activities

Game Development Club, Member

Fall 2018 – Present

- Worked as part of a team to develop (Java, GameMaker Studio, Unity, etc.) and test video games

ACADEMIC COURSEWORK

Computer Science I & II for Majors

Design and Analysis of Algorithms

Discrete Structures

Principles of Programming Languages

Data Structures

Computer Architecture

Calculus and Analytic Geometry I

Calculus and Analytic Geometry II

Computer Organization & Assembly

Data Visualization

Principles of Operating Systems

Programing

Intro to Artificial Intelligence