Andrew Ingson

Westminster, MD 21158
aings1@umbc.edu

EDUCATION

University of Maryland, Baltimore County, Baltimore, MD **Expected May 2021**

- Bachelor of Science in Computer Science, GPA: 3.03
  Honors: Dean's List

TECHNICAL SKILLS

Programing	Python, C, C++, C#, Java, SQL, Shell Scripting, Assembly
Web Development	HTML, CSS, PHP, JavaScript, Boostrap, jQuerry, NodeJS, AnjularJS, Rails, React, Gatsby
Software	JetBrains Software Suite, PuTTY, AutoCAD, Cura, Proxmox, VMWare Suite, Docker, Eclipse, Git, Microsoft Office, Android Studio, Google Cloud, Arduino
Operating Systems	Windows XP/Vista/7/8.1/10, RHeL/Ubuntu/Unix, FreeBSD, Windows Server 2008 R2 & 2012

PROJECTS

RSA Encryption Breaker Spring 2020

- Designed a python version of the RSA keygen algorithm to create a private key using strong primes
- Implemented a python program to attack the private key using a variety of known methods to factor the sum of two primes

Impossible Tic-Tac-Toe Spring 2020

- Developed a new implementation of the class game of tic-tac-toe using artificial intelligence that is statistically impossible to beat.
- Created a minimax algorithm as the foundation of the computer player's artificial intelligence.

Kernel Level System Call Blocking Fall 2020

- Implemented a method of blocking individual sys-calls in the Linux kernel using C
- Created checks at the kernel level to check a skip list to see if a given system call was block by the user

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

Booz Allen Hamilton, *Software Engineering Intern,* Annapolis Junction, MD June 2020 – Present

- Delivered convert communications solutions using technologies such as quiet and android
- Worked with a team of fellow interns to develop our project, from concept to prototype

Jewish Community Center, *Aquatics Instructor & Supervisor,* Owings Mills, MD July 2017 – June 2020

- Worked directly with members across multiple age groups
- Maintained a safe and welcoming environment in all aquatic areas
- 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)

UMBC Chemistry Dept., *Lab Assistant,* Baltimore, MD September 2018 – March 2020

- 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 Programing
Data Visualization	Principles of Operating Systems	Intro to Artificial Intelligence