

Ryan Barron

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EDUCATION

Master of Science, Computer Science
3.771 GPA
University of Maryland Baltimore County

Anticipated 2022

Bachelor of Science, Computer Science
Bachelor of Arts, Political Science
3.756 GPA, Magna Cum Laude,
Pi Sigma Alpha: Political Science Honor Society,
University of Maryland Baltimore County

Jan. 2021

Associate of Applied Science, Cybersecurity
3.8 GPA, Phi Theta Kappa: Honor Society
SGA Transfer Scholarship, Outstanding Community Service Award
Carroll Community College, Westminster, MD

May 2018

WORK EXPERIENCE

Software Engineer

Jun. 2021 – Present

Land Sea Air Autonomy, Finksburg, MD

- Utilized languages: PHP, Python, C, C++, JavaScript, Unix Scripting
- Built Debian packages and services
- Integrated microcontroller executables -- ARM architecture
- Configured base enclosure operating system for automated vehicles
- Optimized C coded executables
- Constructed test programs, data analysis, and visualizations for enclosure testing

Teaching Assistant

Aug. 2019 – Present

Graduate: Operating Systems in C, Natural Language Processing, Security, Ethics in IT

Undergraduate: Python, Data Structures in C++

University of Maryland Baltimore County, MD

- Scored projects and construct answer keys to grade homework
- Lectured when the instructor needed to travel
- Held office hours online & in-person to solve peer coding issues and explain algorithms
- Taught python lab period
- Assisted active learning in lectures

Software Engineer Intern

Jun. 2020 – Sep. 2020

Sales Warp, Baltimore, MD

- Utilized languages: PHP, Golang
- Docker containers
- Documenting application features & process
- Created technical demos

Legislative Intern

Aug. 2018 – Dec. 2018

United States House of Representatives, Washington D.C.

- Communicated congressional trends in artificial intelligence & computer security
- Researched topical information requested by staff members
- Analyzed & answered constituent mail, telephone calls & visits

Information Technology Intern

Sep. 2017 – Jun. 2018

Kite Technology Group, Owings Mills, MD

- Navigated ConnectWise ticket system to prepare, repair & deliver client computers
- Audited server security compliance & verified file integrity

LEADERSHIP EXPERIENCE

Student Government Association, UMBC, <i>Finance Board Representative</i>	Mar. 2019 – May 2020
<ul style="list-style-type: none">▪ Deliberated with other representatives for reasonable student organization appropriations▪ Counseled organizations about budgetary timeline & documentation▪ Reviewed and passed Finance Board statute reform	
Student Government Association, CCC, <i>Senator</i>	Nov. 2017 – May 2018
<ul style="list-style-type: none">▪ Student Activities Finance Board -- debated & allocated student organization funding▪ Leadership Challenge Program – developed interpersonal skills in workshops▪ Mascot Selection Committee -- submitted community college mascot	
Information System Security Association-Student Chapter, <i>President</i>	Mar. 2017 – May 2018
<ul style="list-style-type: none">▪ Drafted, proposed, and enforced constitutional amendments & facilitated elections▪ Documented the speaker process with parent chapter collaboration	

TECHNICAL PROJECTS & WORK

JavaScript

<ul style="list-style-type: none">▪ Adjacency list to graph and vice versa	Fall 2020
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Python

<ul style="list-style-type: none">▪ Minting, sending, node management & record keeping for crypto-currency NFTs	Jan. 2022
<ul style="list-style-type: none">▪ AESNI Analysis on CBC & CTR Algorithms in Pycryptodome	May 2020
<ul style="list-style-type: none">▪ Mongo Database functions for Data Structures Game	Fall 2020
<ul style="list-style-type: none">▪ Backtracking sudoku solver	Nov. 2018

SQL

<ul style="list-style-type: none">▪ Crypto-currency Non-Fungible Token Record keeping	Jan. 2022
<ul style="list-style-type: none">▪ Warehouse simulation data record keeping for application development	Jun. 2021

C++

<ul style="list-style-type: none">▪ Simplified MIPS assembly encoder	Feb. 2020
<ul style="list-style-type: none">▪ Hash table of priority heap buckets containing business orders	Dec. 2019
<ul style="list-style-type: none">▪ Polymorphic warhorse game	Apr. 2019

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<ul style="list-style-type: none">▪ OpenSSL Symmetric and Asymmetric Encryption	Mar. 2022
<ul style="list-style-type: none">▪ USB temperature sensor on a microcontroller	Nov. 2021
<ul style="list-style-type: none">▪ Lidar distance parsing and sending to WebRTC channels for visualization in webpages	Aug. 2021
<ul style="list-style-type: none">▪ Linux Command Shell	Sep. 2020
<ul style="list-style-type: none">▪ Debian Kernel Mailbox	Oct. 2020
<ul style="list-style-type: none">▪ Multimedia Embedded Memory Encapsulation Filesystem	Nov. 2020

Golang

<ul style="list-style-type: none">▪ Concurrent sums from file fragmentation over channels	Feb. 2022
<ul style="list-style-type: none">▪ Webapp Microservice Endpoint	Aug. 2020

PHP

<ul style="list-style-type: none">▪ Concurrent data collection from multiple sources over sockets	Jan. 2022
<ul style="list-style-type: none">▪ Webpage to control, parse, and visualize networked data	Feb. 2022

UNIX

<ul style="list-style-type: none">▪ Debian package builds	Mar. 2022
<ul style="list-style-type: none">▪ Operating system service definitions	Mar. 2022

Assembly Language

<ul style="list-style-type: none">▪ Sine-Wave Graph	Oct. 2019
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Prolog

- Genealogical Relation Descriptor

April. 2020

VHDL

- Binary Key State Lock

Nov. 2019

CONFRENCES AND RETREATS

Student Governance Summit

Feb. 2020