

# Aidan Melvin

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## EDUCATION

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University of Maryland, College Park

*Expected Graduation: May 2024, GPA: 4.0*

- B.S., Computer Science (Machine Learning), B.S., Finance
- *Banneker-Key Scholar* (full-ride merit scholarship, granted to <0.5% of admitted students).
- *Advanced Cybersecurity Experience for Students* (ACES) Honors Living-Learning Program.

Coursework: Computer Systems, Algorithms, Discrete Structures, Applied Cybersecurity, Object Oriented Programming II

## WORK EXPERIENCE

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Software Engineering Intern, PayPal

*May 2022 - August 2022*

- Used JetBrains' TeamCity to create CI/CD flows that automatically built, tested, and deployed the code written by other team members creating a system of records for the PayPal Credit platform.
- Contributed to full-fledged unit and integration test suites using JUnit to verify functionality of the SOR.
- Utilized IntelliJ's debugger, pgAdmin, Postman, and Git to assist in development with team members.

Software Engineering Intern, Capital One

*February 2022 - April 2022*

- Bolstered an in-house federated learning project by creating and testing Django database schemas.
- Created React unit testing suite for the entire project, achieved at least 80% coverage for all components.
- Presented my work on the project to 8 high-level Capital One senior directors.

Software Engineering Intern, Praxis Engineering

*May 2021 - August 2021*

- Designed a script that enables military personnel to troubleshoot of AWS Linux networks and sensors aggregating geolocation, status, and audio data, as well as parse and analyze network statistics.
- The script parsed more than 100KB/s of XML data into an easy-to-read terminal dashboard output as well as more detailed CSV output for later analysis.
- Participated in and contributed to daily 7-member team scrum meetings.

## ACTIVITIES AND LEADERSHIP

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App Dev Club Founder & President

*June 2022 - Present*

- Teach 160 students mobile app development technologies including React Native, Flutter, Xamarin, and backend
- Strengthened verbal and written communication skills by working to acquire club sponsorships and funding.

## TECHNICAL SKILLS

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Languages: Python, Java, JavaScript, MERN stack, Ruby, OCaml, HTML/CSS, R, C#, C/C++, SQL, Swift  
Tools/Frameworks: Linux, Git, TeamCity, Agile Method, Maven, JUnit, Jest, TensorFlow, Octave, Github, SDLC

## PROJECTS

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Exper – Organizational Social Media

*November 2022 - Present*

- Developing a full-stack application where people within and across organizations can interact with each other
- Using React, Django, PostgreSQL, and ArangoDB graph database. Also utilizing token-based auth for users.

Steganographic VoIP Software

*August 2020 - April 2021*

- Built a system involving SIP technology and using Asterisk and Linphone where a LAN phone call can be completed without any voice quality loss but still transferring several kilobytes per second of hidden data.

Cellular Disease Tracker

*September 2021 - December 2021*

- Worked with three other students to develop a TensorFlow convolutional neural network to accurately identify malaria-infected cells correctly 93 percent of the time using Google Collab.

Honeypot Cybersecurity Research Project

*September 2022 – December 2022*

- Working on a 5-month team project to develop a high interaction honeypot to study online attacker behaviors.
- Created honeypot infrastructure using lxc-containers, IP Tables, Firewalls, MITM, Key Loggers and Python Scripts.
- Aggregating data on attacker behavior and analyzing it to determine common cybersecurity threat actor behaviors.