

**Hamza Ali**  
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8681 Wheatfield Way, Ellicott City, MD, 21043

## Education

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### University of Maryland, College Park

B.S, Computer Engineering

- ACES: Advanced Cybersecurity Experience for Students
- Dean's Scholarship

**Expected May 2024**

**Expected Citation May 2022**

**Sept. 2020 – May 2022**

### STARTALK, Howard Community College

**June 2017 – July 2018**

- Received a merit scholarship to complete 8 credits of college Arabic during a five-week intensive summer language program funded by the National Security Agency

## Skills

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**Languages:** Java, Python, C, BASH

**Software:** Autodesk Inventor, Wireshark, Eclipse IDE, Arduino IDE, Multisim Circuit Suite, Microsoft Office Suite, Adobe Creative Cloud Suite

## Technical Experience

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### Technica Cybersecurity CTF Tournament

**Oct. 2020**

- Placed 4<sup>th</sup> out of 100+ participants
- Solved challenges in the PCAPS, Reverse Engineering and Crypto categories

### Qubo Robot, Robotics at Maryland

**Sept. 2020**

- The R@M club builds an autonomous underwater vehicle annually to compete in the Robosub competition
- Designed and implemented the power delivery PCB to account for a variety of voltage and other requirements

### Neuro Sports Case, Communications and Materials Specialist

**Sept. 2019 – Mar. 2020**

- Collaborated with 3 fellow students to improve safety and efficacy of assistive hearing devices in a sports setting
- Modeled a sound processor cover in CAD to reduce noise interference and improve safety for the delicate equipment and printed using the Prusa 3D printer
- Presented our findings at multiple high school conferences and implemented advice from panelists (including Northrup Grumman, Johns Hopkins and more) to improve our design

### Auto Background Blur, Individual Project

**April 2018**

- Created a Java program to blur the background of an image to produce a Bokeh effect
- Implemented image processing algorithms such as Gaussian blur and Canny edge detection
- Developed a method to differentiate between the foreground and background of an image

### Grid Alternatives

**Sept. 2018**

- Installed a solar energy system on an economically disadvantaged home in D.C.

## Certifications

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**CompTIA Security+**

**Expected Winter 2021**

**CompTIA Network+**

**Aug. 2018**

## Work Experience

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### Robotics Instructor, Silver Knights Enrichment

**Aug. 2019 – Mar. 2020**

- Led robotics clubs at Waverly Elementary School using projects from the LEGO First curriculum

### Lifeguard, Goldfish Swim School

**Aug. 2019 – Mar. 2020**

- Obtained Ellis Lifeguard certification and attended monthly safety sessions

### Swim Instructor, Lifeguard, YMCA

**Oct. 2018 – June 2019**

- Instructed children aged 4-12 years old on fundamental swimming skills