# Ethan Saddler

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### **EDUCATION**

#### The Haverford School

Haverford, PA

High School Diploma - GPA: 4.7 (weighted) 3.98 (unweighted)

Setepember 2018 - June 2022

## Georgia Institute of Technology

Atlanta, GA

Bachelor of Science in Computer Science (In progress)

August 2022 - Expected June 2026

## Skills

Languages: Python, Java, JavaScript, HTML/CSS, C/C++, MATLAB

Technologies: GIT/GitHub, VS Code, WordPress, LATEX, CAD, Excel, Linux (Ubuntu and Mint), ROS, FTP

Speaking Languages: English (Fluent), Spanish (Conversational/Professional)

#### EXPERIENCE

## Developer and Engineer

Sep 2018 - Jun 2022

The Haverford School - VEX Robotics Team 169A

Haverford, PA

- Lead the cohesion of software and hardware to solve challenging engineering problems for complicated systems.
- Worked on the math/code for a PID controller, motion profiling and odometry
- Used C++ and Python
- Awards: World Championship semi-finalists, PA state champions and WPI Signature Event Winners
- Team named "VEX Innovators" by the REC Foundation for "consistently pursuing and achieving excellence"

## Open Source Contributor

Jan 2021 - Dec 2021

Open Street Map

Remote

- Contributed to the development of open-source mapping software that provides GPS in underdeveloped areas.
- Specifically contributed to "iD", which is the editor that users contribute to the world map with. (Frontend)
- Worked with mostly JavaScript, but used HTML/CSS occasionally

## Research Intern

May 2021 - Sep 2021

University of Pennsylvania

Philadelphia, PA

- P.I. Chamith Rajapakse, Ph.D. in the Laboratory for Structural, Physiologic, and Functional Imaging. (LSPFI)
- Assisted the development of machine learning models for for the detection of the mandible in patient CAT/CT Scans and subsequent modelling.

## Projects

## Automated Discord Client | Python, GIT and JSON

May 2021 – Present

- Developed a Discord self-bot that is able to parse, process and interact through the Discord API
- Parsed messages sent by a popular Discord Bot, Mudae, and based on values parsed would asynchronously react to/send messages or store information such as timings, events and user preferences.
- Made it public on Reddit and Discord: recieved over 1k downloads on Mediafire.
- Have continued to update the client as "Mudae Bot" and the Discord API have changed, as well as work collaboratively with others in the community to fix bugs and develop new features.

### **ARG** Website | HTML/CSS, JavaScript, Python, FTP

April 2022 – June 2022

- Was sole web developer for a school themed ARG (alternate reality game), which is an online scavenger hunt.
- Designed and created 15 unique sub-pages, using modern design/animations written in CSS/JavaScript.
- The backend, which primarily handled data distribution and logic, was written in python.
- Overcame challenges such as compatibility across devices (phones, laptops, desktops, etc.), creating dynamic pages that changed based on user input and obfuscation of elements until user "solved" the page.

## Steam Deal Bot | Python, GIT

April 2020 – August 2020

- Used a webdriver knowns as "selenium" to scrape a Steam store page: a popular video game distribution service.

  The data collected is then run through a algorithm that converts the raw HTML data into text to be tweeted.
- Written in Python, but used HTML knowledge to parse webpage content.

## Blackjack | Python

 $January\ 2020-March\ 2020$ 

- Developed a text-based blackjack game, including dealer AI
- Worked with python and GUI design