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++, MATLAB
Technologies: GitHub, VS Code, WordPress, LATEX, CAD, Linux (Ubuntu and Mint), ROS, FTP
Speaking Languages: English (Fluent), Spanish (Conversational), Mandarin (Elementary)

EXPERIENCE

Developer and Engineer Sep 2018 - Jun 2022
The Haverford School – VEX Robotics Team 169A Haverford, PA
- Working on the cohesion between software and hardware to solve challenging engineering problems
- Implementation of PID controller, motion profiling and odometry (absolute positioning)
- Worked with 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 15 unique 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