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/SCSS, C/C++, MATLAB
Libraries/Frameworks: React, Bootstrap, Tailwind, jQuery, NumPy
Technologies: GIT/GitHub, VS Code, WordPress, LATEX, CAD, Excel, Linux (Ubuntu and Mint), ROS, Google Cloud, Firebase, 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++, 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

Competitor — August 2022 - Current
Georgia Tech - Competitive Programming Team — *Atlanta, GA*
- Work on ICPC type problems involving Graph Theory, Combinatorics, Dynamic Programming, Probability, Simulation, Computational Geometry, and more
- Will attend regional ICPC competition, an algorithmic programming contest for college students. Will work to solve real-world problems, fostering collaboration, creativity, innovation, and the ability to perform under pressure.
- Use C++ and Python

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

Medical Prescription Planner | *HTML/CSS, SCSS, JS, Python, Firebase*   May 2021 – Present
- Worked with a team in a 40 hour hackathon (hackGT) to develop a web app that doctors can login to and create prescription reminders for their patient that show up on the patient's phone calendar.
- Created a modern UI/UX and frontend with SCSS, Tailwind CSS, React, Bootstrap and jquery.
- Coordinated a backend was hosted on Firebase and connection to Google Calendar API that was written with python: the script took information that doctors submitted through the website and created it into an event that would be sent as a request to Google Cloud.

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 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

MAJOR CLASSES TAKEN

Intro to Computing | *Taken in Highschool - Passed Exam at Georgia Tech*   Spring 2021
- Covered the basic concepts of computer programming in a high-level language. Basic concepts for Software Engineering/Software Engineer.

Intro to Object Oriented Programming | *Taken at Georgia Tech*   Fall 2022
- Covered object-oriented programming principles and worked on applying them in the construction of Java programs.

Linear Algebra | *Taken at Georgia Tech*   Fall 2022
- Covered linear systems, matrices, eigenvalues, orthogonality, and SVD.

Data Structures and Algorithms | *To be Taken in Spring of 2022 at Georgia Tech*   Spring 2023
- Covers computer data structures and algorithms in the context of object-oriented programming. Focus on software development towards applications.