Max Guthrie

Computer science student seeking a software engineering internship

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LEADERSHIP & INVOLVEMENT

Director of Technology

Engineering-Consulting Collaborative 06/2020 - Ongoing
University Park, State College, PA

Penn State professional organization dedicated to improving problem-solving, leadership, and consulting skills. E-CC offers pro bono consulting to local startups and seeks to help its members network.

- Making changes and HTML/CSS code for the organization's website.
- Leading a team of associates to complete projects and make improvements to E-CC from a technology standpoint.
- Help with hosting in-house case competitions.

Member & Competitor

DevPSU 08/2020 University Park, State College, PA

Emphasizes collaborative programming by hosting coding projects and competitions. A section of the club, DevPSU Learning, also hosts weekly events that teach concepts ranging from web development to machine learning.

- Teaches concepts and applications that are under emphasized in intro classes.
- Experience creating full-stack web applications with Flask.

Member

Nittany Data Labs 09/2020 University Park, State College, PA

A Penn State organization involved in teaching data science to its members and working on projects pertaining to health, entrepreneurship, and various other topics.

PERSONAL PROJECTS

Stock Market Sentiment

https://github.com/mguthrie45/Stock-Sentiment-Analyzer

Python-based software that scrapes the web for news pertaining to a ticker on the user's watchlist. A sentiment analyzer is applied to parsed news content to find the positive-negative score of a certain stock, and users are notified in the program and by email when a stock significantly changes in sentiment.

- Used technologies: Python 3, BeautifulSoup4, Pandas, Tkinter, NTLK, threading, SMTP requests.

Python Search Engine

https://github.com/mguthrie45/Search-Engine-Simulation

A rudimentary search engine built with Python 3. Flask was used for the user interface.

- Involved three main components: SQLite database for storing site content and keywords, the Flask based GUI, and the crawler, which was responsible for finding new websites.
- This project taught me a lot about how search engines gather info from the web, how search results are found, and important concepts surrounding SEO optimization.

Sorting Algorithm Visualizer

https://github.com/mguthrie45/Sorting-Algorithm-Visualization

Full-stack, responsive application with Object-oriented back end JS. Made with an easy-to-understand UI that presents smooth animations for famous sorting algorithms.

- Used technologies: JavaScript, HTML, CSS

Top-Down Survival Game

https://github.com/mguthrie45/Survival-Bullet-Hell

A JavaScript game where the player moves within the frame to collect upgrades and shoot enemy objects that bounce around. Upgrades improve the player object's abilities. The longer the player survives and the more upgrades collected, the higher the score. A boss wave spawns periodically, and collision physics for both the player and enemies and objects and walls are existent.

EDUCATION

B.S. Computer Science

Pennsylvania State University GPA: 4.0
08/2019 - Ongoing State College, PA

PROGRAMMING LANGUAGES

Python

HTML & CSS

JavaScript

Java

SKILLS

GIT **Bootstrap** **Data Structures** **UML** **Verilog & Xilinx Vivado** **MIPS ISA & CPU Design** **NetBeans & Eclipse**

HONORS & AWARDS

Penn State Freshman Award:

award given to the highest academic achievers in PSU's freshman class

Cum Laude Society

Given to the highest academic achievers graduating high school.

Mu Alpha Theta

Awarded for exceptional use of math at 2019 PRSEF science fair.