Saahil Bhatia

(706) 315-2604 | SaahilBhatia2013@Outlook.com | saahbha.github.io | linkedin.com/in/saahil-bhatia/

Education

Purdue University, West Lafayette, IN *August 2021*

Bachelor of Science in Computer Science

Relevant Coursework

Data Structures and Algorithms, Data Mining, Statistics, Calculus I-III, Linear Algebra, Differential Equations

Technical Skills

Python, R, MATLAB, React.JS, JavaScript, HTML/CSS, SQL, C, C++, C#, Java

Work Experience

Course Preference Registration Matching for teachers-scholars.org *Jun 2021-present*

- Lead the algorithm design team to match 400 scholars to 36 seminars of their preferences that have space minimums and maximums, while optimizing for both preference rankings and seminar filling
- Prototyped a program that ran in 7 seconds to solve this as a linear programming problem using Google's Operations Research Tools
- Redesigned the program using PuLP to speed up the script, yielding a total run time of less than 2 seconds
- Currently working with the web team to create the back end of the registration website

Kumon of North Columbus, Columbus, GA *Apr 2017 – Nov 2017*

Center Assistant

- Tutored Middle and High Schoolers in Math and Reading
- Resolved inquiries of parents
- Answered phone calls in place of the Center Manager
- Performed data entry and file organization

Independent Projects

Forex Arbitrage Bot *Jul 2021-present*

- Developing a program to find pricing inefficiencies in the foreign currency exchange market using the Bellman-Ford algorithm
- Implemented the Bellman-Ford algorithm, *currently* designing a system to obtain and process exchange data then display these pricing inefficiencies in a web interface

Word search solver *Jun 2021-present*

- Developed a Java program to solve word search puzzles with the Boyer-Moore string search algorithm, currently building a react.js app to visually demo this on my website and allow for user input

Stock Trading Bot *Feb 2021*

- Developed a Python program that attempts to profit by buying and selling stocks with simulated money based on moving average convergence-divergence in variable time frames
- The program receives data from yahoo finance and plots the candlestick chart of opening and closing prices in the given time interval along with two different exponential moving average lines, and decides to buy or sell a stock whenever these lines appear to cross

Maze Solver *Sep 2020*

- Implemented an algorithm in Java to find the path in the maze from start to finish using the stack and queue abstract data types

Regression and Predictive Analytics *Jul 2019*

- Developed a Python program to perform polynomial and/or linear regression on the populations of each county in Indiana using census data, and to graph future projections