Saif Masoud

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EDUCATION

University Of Massachusetts Amherst   Amherst, MA
B.S Computer Science   *Expected Graduation: Dec 2023*
- Fall 2022 Dean's List
- Major GPA: 3.5
- Coursework: Intro To Algorithms, Systems Programming, Computer Networks, Software Engineering, Linux System Management, Linear Algebra

MassBay Community College   Wellesley MA
A.S Computer Science   *2021*
- Phi Theta Kappa Honors

SKILLS

Languages: Python, Java, JavaScript, C/C++, SQL
Frameworks: React, Flask
Developer Tools: Git, Docker, Visual Studio Code, Bash, Linux

PROJECTS

Rubik's Solver | *Python, React, JavaScript, Docker*   GitHub
- Presented at MassBay STEM Expo 2020
- Programmed optimal 2x2 Rubik's Cube Solver using a Python backend, alongside an interactive React frontend
- Implemented a bi-directional breadth first search algorithm to improve efficiency
- Created a Docker container for simple installation

Dynamic Programming Algo Visualizer | *Python, Qt*
- Implemented visualizations for dynamic programming algorithms such as Knapsack to help learners understand them
- Created a tabular view using the Qt framework to display the logic of each algorithms
- Added a step-by-step view of each algorithm, with play, pause, speed, and step-back options
- Built with object-oriented design to facilitate adding more algorithms

Anki-OCR | *Python, JavaScript, HTML*
- Created a tool to convert handwritten flashcards into digital format compatible with Anki
- Decreased time needed to digitize flashcards by implementing mass import functionality
- Built a command-line tool with Python, as well as a webapp with JavaScript for cross-platform use

SeniorChat | *Python, Flask, JavaScript, React*
- Implemented backend API and SQL database of video chat web-app for group hackathon project
- Incorporated the Twilio API to allow users to send SMS messages through the app

EXPERIENCE

Intramural Official   Sep 2022 – Present
University of Massachusetts Amherst   *Amherst, MA*
- Selected to officiate semi-final and final matches
- Attended regular meetings and matches

Software Developer   Feb 2023 – Present
BUILD UMass   *Amherst, MA*
- Working on a mobile app for local computer vision business

STEM Mentee   Sep 2019 – May 2021
MassBay Community College   *Wellesley, MA*
- Met with engineers from Mathworks and a startup to learn about inner workings and practices of software engineers

ACTIVITIES AND INTERESETS

- Played Varsity Soccer For MassBay