

Saif Masoud

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EDUCATION

University Of Massachusetts Amherst

Amherst, MA

B.S Computer Science

Expected Graduation: Dec 2023

- Dean's List 2022
- Major GPA: 3.67
- 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

EXPERIENCE

Operating Systems Course Assistant

Sep 2023 – Present

Manning College of Information and Computer Sciences

Amherst, MA

- Conducted office hours to assist students with course material
- Tutored Algorithms and Computer Systems courses

Software Developer

Feb 2023 – Present

BUILD UMass

Amherst, MA

- Working on a mobile app for computer vision company
- Interviewed new candidates for the software developer role

Research Volunteer

Jun 2023 – Aug 2023

Manning College of Information and Computer Sciences

Amherst, MA

- Applied a machine learning augmented online algorithm to the Ski Rental problem, achieved better results than a conventional algorithm on real-world and synthetic data
- Presented results at the UMass CICS Fair

Intramural Official

Sep 2022 – Present

University of Massachusetts Amherst

Amherst, MA

- Selected to officiate finals based on performance evaluations

PROJECTS

Rubik's Solver | *Python, React, JavaScript, Docker*

[GitHub](#)

- Presented at the MassBay 2020 STEM Expo
- Programmed optimal 2x2 Rubik's Cube Solver using a Python backend and a React frontend
- Implemented a bi-directional breadth first search algorithm to improve efficiency
- Created a Docker container for simple installation

Dynamic Programming Algorithms Visualizer | *Python, Qt*

- Implemented visualizations for popular dynamic programming algorithms to help learners
- Utilized the Qt framework to create the display
- Added a step-by-step view of each algorithm, with play, pause, speed, and step-back controls
- 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 cross-platform web-app in addition to a command-line interface

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

SKILLS

Python, Java, JavaScript, C/C++, SQL, React, Flask, Git, Docker, Visual Studio Code, Bash, Linux