

SYED HUSSAINI

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EDUCATION

Dartmouth College, Hanover, NH

June 2024

Bachelor of Engineering: Major in Computer Engineering; Bachelor of Arts: Major in Computer Science:

Relevant Coursework: Problem Solving via Object-Oriented Programming, Data Structures and Algorithms, Software Design and Implementation

Activities: Society of Hispanic Professional Engineers, Dartmouth Powerlifting Club. First Year Student Enrichment Program (FYSEP), Dartmouth Mountaineering Club, Sigma Nu (Delta Beta Chapter)

Green City Engineering FSP, Berlin, Germany

Spring 2022*

Courses: Introduction to Environmental Engineering and Sustainable Cities along with German 2 and 3.

SKILLS & CERTIFICATIONS

Coding Languages: Python, JavaScript, C, HTML, CSS, Java,

Technical: React.js, Git, Bash, LaTeX, Solidworks, Arduino, Valgrind

Languages: English, Urdu, Spanish (elementary proficiency), Japanese (elementary proficiency).

WORK EXPERIENCE

Dartmouth Computer Science XDiscovery Lab, Hanover, New Hampshire

May 2021 - Present

HCI and Accessibility Researcher

- Implementing plugin for Google Meet in chrome using JavaScript, CSS, and HTML to increase accessibility on the platform.
- Researching the virtual learning experience for d/Deaf and hard of hearing students on platforms like Google Meet.
- Helped organize the pilot and case studies, reached out to participants, and discussed potential solutions using the open-source code from Google Meet.

Dartmouth Computer Science Department, Hanover, New Hampshire

March 2021 - Present

Introduction to Computer Science Teaching Assistant

- Held weekly recitation for 9 students and taught them the basics of Python such as: functions, loops, graphics, classes, objects, recursion and run time (Big-O).
- Held weekly office hours to facilitate learning and debugging skills for students.

PROJECTS

Part of Speech Identifier | *Java*

- Programmed a machine learning algorithm to tag parts of speech (POS) in any English sentence.
- Achieved a 96.5% accuracy in identifying the POS by using the Brown Corpus document as a training model.
- Implemented HashMaps, Viterbi machine learning algorithm, and backtracking to train the model with +200,000 words.
- Created an interactive interface in the console

Tiny Search Engine | *C*

- Coded three components in C: crawler, indexer, and querier to simulate a tiny search engine.
- Optimized program by creating regression testing bash scripts for all three with a comprehensive GitHub library.
- Created Makefiles to compile the code when given the “make” command in the terminal.

Dartmouth Pathfinder | *Python*

- Developed a program to find the shortest path between two vertices over an image of Dartmouth containing 80 vertices.
- Implemented breadth first search algorithm to loop through vertices and edges of abstract Dartmouth map

ADDITIONAL EXPERIENCE

Waukegan To College, Waukegan, IL

Summer 2021

Curriculum Team Member

- Worked with a team of four other interns to design a Youth Leadership Retreat for first-generation rising high school freshman and successfully had an attendance of 100%
- Designed the curriculum for the retreat with a focus on self-advocacy, leadership, and mentorship and networked with various speakers while also designing activities and workshops for various time slots.
- Ran a business coffee shop simulation that had profited a net income of \$20,000 after 10 weeks.