

# Zohair ul Hasan

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## EDUCATION

### DREXEL UNIVERSITY

#### B.S. IN COMPUTER SCIENCE

Expected Graduation 2024 |

Philadelphia, PA

Current year: Sophomore

GPA: 4.0

Honors:

- Drexel AJ Scholarship (\$42,000/yr)
- Dean's List in Fall, Winter, and Spring 2019 - 2020

Relevant Courses:

- Advanced Programming I & II (A+, A+)
- Advanced Programming Tools & Techniques
- Computing & Informatics Design

### CS 50 HARVARD ONLINE

#### COURSE | CERTIFICATE

Summer 2020 | Philadelphia, PA

Learned complex Computer Science topics including:

- Algorithms and Data Structures (C programming language)
- Pointers
- Memory management
- Databases
- HTML & CSS
- Python
- Flask

## SKILLS

### TECHNICAL SKILLS

General:

Python3 • C • HTML & CSS • JavaScript  
SQLite • Git • Bash • Linux  
Raspberry Pi • Awk • VB.NET • Microsoft  
Office Suite • LaTeX • Markdown

Libraries & Frameworks:

Flask • Numpy • Matplotlib • Requests  
BeautifulSoup4 • Bootstrap 4

### LANGUAGES

- English
- Urdu
- Hindi

### SOFT SKILLS

Work Ethic • Time Management  
Adaptability • Teamwork • Leadership

## RELEVANT EXPERIENCE

### DREXEL VERTICALLY INTEGRATED PROJECTS

#### SOFTWARE ENGINEER

Spring 2020 | Philadelphia, PA

- Led a team of 2 to program a Raspberry Pi in Bash using FFMPEG (command line program used to process video and audio) for recording video, compressing it, and uploading live stream to YouTube
- Learned Bash Scripting and FFMPEG in 1 week to complete the task
- Reduced latency by 40% by optimizing key factors such as frames per second and video resolution
- Evaluated multiple options to complete the task and gave a presentation to **Professor Cairncross**

## TECHNICAL PROJECTS

### DREXEL COURSE AVAILABILITY NOTIFIER | GITHUB

Fall 2020 | Philadelphia, PA

- Built a web-scraper in Python3 that notifies students via email when their selected course has available seats
- Impacted over 132 students at Drexel University who used this program to help them sign up for their courses easily
- Utilized the requests and BeautifulSoup4 libraries to manipulate HTML data and extract useful information

### FINANCE WEB APPLICATION | GITHUB

Summer 2020 | Philadelphia, PA

- Built a stock trading simulator web-application in Python3 using Flask
- Programmed in more than 4 languages after learning them in 3 weeks
- Implemented SQLite database to store hashed login credentials and user data
- Integrated the Investors Exchange API to capture real-time stocks' data
- Styled website with CSS library Bootstrap4

### TIC TAC TOE AI | GITHUB

Summer 2020 | Philadelphia, PA

- Programmed a Tic Tac Toe game with a GUI and an AI to play against in Python3
- Implemented a Minimax algorithm to program a competitive AI opponent

### SPELL CHECKER | GITHUB

Summer 2020 | Philadelphia, PA

- Implemented a program in C that spell-checks a text file using a hash-table
- Loads 143,091 dictionary words and checks 965 words in 0.38 seconds

### IMAGE FILTER | GITHUB

Summer 2020 | Philadelphia, PA

- Implemented a program in C that adds up to 4 Instagram esque filters to an image (gray-scale, sepia, reflection, blur)
- Manipulated bytes to modify pixels of an image according to the type of filter

## ADDITIONAL EXPERIENCE

### Intramural Sports Official at Drexel University

- Officiated 30+ basketball & soccer games
- Communicated with heated players to ensure safety for everyone