

# Zohair ul Hasan

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## EDUCATION

### DREXEL UNIVERSITY

#### BS IN COMPUTER SCIENCE

Expected Graduation 2024 |

Philadelphia, PA

Current year: Sophomore

GPA: 4.0

Honors: Drexel AJ Merit Scholarship,

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

June 2020 | Philadelphia, PA

Learned complex Computer Science topics including:

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

### ROOTS SCHOOL SYSTEM

#### HIGH SCHOOL

Graduated August 2019 | Islamabad, Pakistan

GPA: 3.95

## SKILLS

### TECHNICAL SKILLS

General:

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

Libraries &amp; Frameworks:

Flask • Numpy • Matplotlib • Requests  
BeautifulSoup4 • Bootstrap 4

### LANGUAGES

- English
- Urdu
- Hindi

## RELEVANT EXPERIENCE

### DREXEL VERTICALLY INTEGRATED PROJECTS

#### SOFTWARE ENGINEER

Jan 2020 - March 2020 | Philadelphia, PA

- Led a team of 2 to program a Raspberry Pi in Bash using FFMPEG to record video, compress it, and upload directly to live stream to YouTube in real time
- Learned Bash Scripting and FFMPEG (a command line tool used to process video and audio) 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 had available seats
- Impacted over 50+ students at Drexel University who used this program to help them sign up for their courses easily
- Used the requests and BeautifulSoup4 libraries to manipulate HTML data and extract useful information
- Surveyed potential users and changed functionality based on feedback

### 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 2 weeks
- Implemented a database in SQLite to store login credentials (hashed) and user data
- Integrated IEX API to capture real-time stocks' data
- Styled website with CSS library Bootstrap4

### 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 in memory and can check 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