# 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 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

#### HIGHSCHOOL

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 & 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 132 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