# MALIK MUHAMMAD SHEHRYAR HANIF

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## **FDUCATION**

## **NYU ABU DHABI**

May 2023 | Abu Dhabi, UAE B.S. in Computer Science, Mathematics

Current CGPA: 4.00/4.00

# **KEY COURSEWORK**

- Algorithms
- Data Structures
- Linear Algebra
- Probability and Statistics
- Discrete Mathematics
- Multivariable Calculus with Application to Science and Engineering
- Computer Systems Organization
- Linear and Nonlinear Optimization
- Database Design and Implementation

## SKILLS

## **PROGRAMMING**

Skilled In:

- Python (OOP and Data Science)
- C++/C
- HTML, CSS (Including Boostrap 4), and JavaScript (Including jQuery, Node.js, and React.js)

#### Exposure To:

- $\bullet R$
- MongoDB (Including MongoLab)
- Git
- Assembly

## **SPOKEN LANGUAGES**

- English
- Urdu
- Hindi
- Punjabi

## **MISCELLANEOUS**

- LaTeX
- Microsoft Word, Excel, PowerPoint
- Adobe Photoshop, Lightroom

# AWARDS/HONORS

- Top in World, Cambridge O Level Sociology
- Top 10 Mathematicians in Pakistan, National Mathematics Talent Contest
- Third Place in Punjab, Best Across Four Cambridge A Levels

## PAST AND CURRENT EXPERIENCE

## NYU ABU DHABI | Undergraduate Research Assistant

Sep. 2019 - Present | Abu Dhabi, UAE

- Coding and data science lead for research team working with Assistant Professor Andy Harris (Political Science)
- Currently using R and Python (particularly pandas and numpy) scripts to fuzzy-match and geo-map election polling stations in Malawi, so as to identify voting irregularities and incidence of electoral fraud
- Earlier used Python (particularly beautifulsoup4) to web-scrape, clean, and analyze databases for Pakistani election polling stations to see how turnout varies between gender-segregated and combined stations

# NYUAD STUDENT GOVERNMENT | LIBRARY AND IT COMMITTEE MEMBER

Jan. 2021 - Present | Abu Dhabi, UAE

- Represent and address the student body's needs and concerns with regards to technological support during the pandemic
- Initiate projects that provide students with an effective academic technology experience, while ensuring accessibility and inclusivity for a diverse student body

## NYUAD STUDENT GOVERNMENT | DIVERSITY COMMITTEE MEMBER

Sep. 2020 - Dec. 2020 | Abu Dhabi, UAE

- Liaised between Student Interest Groups based around identity and culture, helping coordinate event logistics and collaborative opportunities
- Organized campus conversations to discuss student body concerns, such as the spectrum of socioeconomic backgrounds

## THE GAZELLE | Copy Chief (Former Deputy Copy Chief)

Sep. 2019 - Dec. 2020 | Abu Dhabi, UAE

- Oversaw the final editorial process of weekly student publication
- Taught American Grammar Style Guide (based on The New York Times Manual of Style and Usage) to help journalists and members of the editorial team
- Team size grew from 3 to 8 during my tenure

# **PROJECT WORK**

## PERSONAL PORTFOLIO WEBSITE | HTML, CSS, JAVASCRIPT

Jan. 2021 - Present | github.com/ShehryarHanif/ShehryarHanif.github.io

- Design and implement an up-to-date portfolio website to showcase my personal profile
- Gained extensive knowledge of Bootstrap, Font Awesome, and other dynamic toolkits

#### BRICK BLAST GAME | PYTHON, PROCESSING

Oct. 2019 - Dec. 2019 | github.com/ShehryarHanif/brickBlast

- Designed and developed a desktop derivative of the popular mobile game "Brick Blast Ball"
- Designed original randomized algorithms to provide infinite gameplay through procedurally generated levels
- Built innovative cannonball collision mechanic based on the Physics model of light