

# MALIK MUHAMMAD SHEHRYAR HANIF

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## EDUCATION

### 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
- Special Topics: Applied Internet Technology
- Linear and Nonlinear Optimization
- Computer Systems Organization
- Linear Algebra
- Probability and Statistics

## SKILLS

### PROGRAMMING

Skilled In:

- Python (Including Pandas, NumPy, RegEx, Beautiful Soup)
- C++/C
- HTML, CSS (Including Bootstrap 4), JavaScript (Including jQuery, Express.js, Node.js, Passport.js)

Exposure To:

- R
- Julia
- MongoDB (Including MongoLab)
- Unity
- C#

### LANGUAGES

Native or Bilingual Proficiency:

- English
- Urdu

Full Working Proficiency:

- Hindi
- Punjabi

### MISCELLANEOUS

- LaTeX

## 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. 2020 – 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

- Liaise between Library Staff, IT Support Team, and student body of 1,600 students, addressing needs and concerns with regards to techical support during the pandemic
- Revised WiFi support forms, set up posters for technological guidance, and implemented measures to increase library usage in a socially distant manner
- Currently planning overhaul of Student Portal (center-point of college communications)

### THE GAZELLE | WEB TEAM MEMBER

Sep. 2020 – Feb. 2021 | Abu Dhabi, UAE

- Maintained the full stack for the website (www.thegazelle.org) for UAE's biggest college newspaper
- Updated front-end interface with JavaScript and TypeScript
- Worked with DigitalOcean Droplet, which was used to set up website server

## PROJECT WORK

### PERSONAL PORTFOLIO WEBSITE | HTML, CSS, JAVASCRIPT

Jan. 2021 – Present | [github.com/ShehryarHanif/ShehryarHanif.github.io](https://github.com/ShehryarHanif/ShehryarHanif.github.io)

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

### ALIENATION GAME | UNITY, C#

Jan. 2021 | [github.com/ShehryarHanif/alienation](https://github.com/ShehryarHanif/alienation)

- Designed atmosphere and wrote the story for point-and-click adventure for weekend-long game development contest "NYU Global Game Jam 2021"
- Implemented story progression mechanism, collision detection, automated movement, and environmental assets through C# scripts

### BRICK BLAST GAME | PYTHON, PROCESSING

Oct. 2019 – Dec. 2019 | [github.com/ShehryarHanif/brickBlast](https://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