

SHEHRYAR HANIF

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EDUCATION

NYU ABU DHABI

May 2023 | Abu Dhabi, UAE
B.S. in Computer Science, B.S. in Mathematics
Current CGPA: 4.00/4.00

KEY COURSEWORK

- Algorithms
- Data Structures
- Special Topics: Applied Internet Technology (Full-Stack Web Development)
- Computer Systems Organization
- Linear and Nonlinear Optimization
- Linear Algebra
- Probability and Statistics
- Multivariable Calculus

SKILLS

PROGRAMMING

- Python (Including Pandas, NumPy, BeautifulSoup)
- JavaScript (Including jQuery, Express.js, Node.js)
- React (Including Hooks, Routers)
- HTML, CSS (Including Bootstrap 4)
- C++ \ C
- MongoDB
- MySQL
- R
- Unity
- C#

LANGUAGES

Native or Bilingual Proficiency:

- English
- Urdu

Full Working Proficiency:

- Hindi

MISCELLANEOUS

- LaTeX
- Microsoft Word, Excel, PowerPoint

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

PROFESSIONAL EXPERIENCE

UNDERGRADUATE RESEARCH ASSISTANT | NYU ABU DHABI

Sep. 2020 – Present | Abu Dhabi, UAE

- Led coding and data science efforts for research team working with Assistant Professor Andy Harris (Political Science)
- Specialized in data processing frameworks for **Python** (particularly **pandas**, **numpy**, **re**, and **beautifulsoup4**) and **R** (particularly **dplyr**, **ggplot2**, and **shiny**)
- Fuzzy-matched and geo-mapped election polling stations in Malawi in order to identify voting irregularities and incidence of electoral fraud
- Web-scraped, cleaned, and analyzed databases for Pakistani polling stations to see how turnout varies between gender-segregated and combined stations

ACADEMIC REPRESENTATIVE FOR MATHEMATICS | NYUAD

STUDENT GOVERNMENT

May 2021 - Present | Abu Dhabi, UAE

- Liaise between Mathematics department and student body of 1,600 students, addressing needs and concerns with regards to course offerings and program structure
- Planning workshops and panel talks with academics and researchers from NYUAD and other universities
- Streamlining communication pipeline and building robust feedback loop through regular surveys and student meetings

SOFTWARE ENGINEER | THE GAZELLE (STUDENT NEWSPAPER)

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**
- Revised website's documentation for server set-up and usage with the purpose of easing team transitions in future years

PROJECTS

HANDLEBARS GYM TRACKER | HTML, CSS, JAVASCRIPT, MONGODB

Apr. 2021 | github.com/ShehryarHanif/handleBars

- Developed front-end and back-end of web application with support for exercise-tracking and personalized exercises searches
- Implemented asynchronous JavaScript with **Fetch.js**, user authentication with **Passport.js**, and online hosting with **Heroku** and **MongoDB Atlas**

ALIENATION GAME | UNITY, C#

Jan. 2021 | github.com/ShehryarHanif/alienation

- Designed atmosphere and wrote 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 responsive environmental assets through **C#** scripts

BRICK BLAST GAME | PYTHON, PROCESSING

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

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