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**, **Regex**, **Beautiful Soup**)
- **JavaScript** (Including **jQuery**, **Express.js**, **Node.js**, **Passport.js**)
- **HTML**, **CSS** (Including **Bootstrap 4**)
- **C++** \ **C**
- **MongoDB** (Including **MongoDB Atlas**)
- **R**
- **Julia**
- **Unity**
- **C#**

LANGUAGES
Native or Bilingual Proficiency:
- English
- Urdu
Full Working Proficiency:
- Hindi
- Punjabi

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

PROJECTS

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

PERSONAL PORTFOLIO WEBSITE | HTML, CSS, JavaScript
Jan. 2021 | github.com/ShehryarHanif/ShehryarHanif.github.io
- Developed an updatable portfolio website to showcase my personal profile
- Utilized **Bootstrap**, **Font Awesome**, and other dynamic toolkits

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

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**, 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 election polling stations to see how turnout varies between gender-segregated and combined voting stations

LIBRARY AND IT COMMITTEE MEMBER | NYUAD Student Government
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
- Coordinated planned overhaul of Student Portal (center-point of all college communications and administrative documents)

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