

Muhammad Talal Naveed

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EDUCATION

New York University Abu Dhabi

Bachelor of Science in Computer Science, Applied Mathematics and Finance

Graduation: May 2027

Abu Dhabi, UAE

- *Honors: Full-Ride Scholarship*

EXPERIENCE

Center for Quantum and Topological Systems | *Quantum Machine Learning Research Assistant*

July 2024 - February 2025

Abu Dhabi, UAE

- Researching robustness of quantum machine learning models against adversarial attacks on image datasets.
- Training Quanvolutional and simple quantum neural networks to evaluate accuracy and resilience.
- Developing efficient defense strategies to mitigate adversarial vulnerabilities in quantum models.
- Conducted performance analyses and documented findings to advance quantum machine learning research.

Pet Republic | *Software Development Intern*

August 2024 - December, 2024

Abu Dhabi, UAE

- Revamped the company website, resolving flaws and enhancing user experience with a focus on frontend development using React
- Coordinated with veterinary clinic, gathering requirements and feature requests to tailor services on the platform
- Conducted usability tests and incorporated feedback to improve site navigation and functionality

CESM | *Website Design and Development Student Assistant*

July 2024 - December 2024

Abu Dhabi, UAE

- Redesigned NYUAD's Center for Smart Engineering Materials (CESM) website, transforming it into a modern, user-friendly interface
- Led frontend development using React, focusing on building responsive and interactive user experiences
- Collaborated with team members to ensure seamless integration of design elements and functionality

eBrain Lab | *Machine Learning Research Assistant*

January 2024 - June 2024

Abu Dhabi, UAE

- Assisting PostDocs in different development projects related to Machine Learning (ML) and Quantum ML
- Design, Implementation, and Testing of embedded ML techniques for security and performance
- Conducted comparative analysis of backdoor attacks, contributing to the development of secure AI vision.

Division of Science | *Student Assistant*

March 2024- June 2024

Abu Dhabi, UAE

- Helped in process enhancement and visual inspection of spaces using Database and Excel sheets
- Conducted data analysis on room booking and space utilization to improve resource allocation and operational efficiency
- Utilized JavaScript along with HTML and CSS for web development, and BeautifulSoup for web scraping
- Helped maintain the full stack for the website, utilizing Amazon S3 API to improve performance and security

LEADERSHIP EXPERIENCE

New York University Abu Dhabi | *Member Campus Spaces Committee*

September 2023- May 2024

- 1 out of 5 students selected from a pool of 400+ applicants. Acted as a liaison between student and admin. Provide insightful ideas as to how campus spaces could be improved. Help in ensuring all campus spaces are active and propose any renovations needed. Manage google forms and campus spaces databases.

Lahore Grammar School | *President Von-Neumann IT Society*

February 2022-March 2023

- Formed, trained, and led teams in winning various local, national, and international competitions. Managed logistics, website, registration, human resource, contractors, event space, and security for school events like debate tournaments, academic olympiads, sports competitions, and model united nations. Helped the school's IT Department and collaborated with admin. Held weekly workshops teaching useful skills to students.

Skills

Programming: Python, C++, Vb.net, JavaScript, HTML, R, CSS, PyTorch, PennyLane, Qiskit, Keras, React

Operating Systems: Windows, Linux, Mac

Data Analysis: EXCEL, Database, MATLAB, Python (Numpy, Pandas, Matplotlib, BeautifulSoup), Web Scraping

Others: Photoshop, Blender, Public Speaking, Event and Team Management