Abdulrahman Qureshi

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Multidisciplinary NYU student blending AR, embedded systems, and design to build interactive, impactful tech experiences.

Technical Projects

Squirtle Spray

|Independent Project | Jan 2025 - Mar 2025

- Built a motion-activated Squirtle toy that sprays water using Raspberry Pi, OpenCV, and a 12V pump system, simulating a real-time "Water Gun" effect.
- Integrated Python-based computer vision with relay-controlled hardware, including a solenoid valve and water pump, for interactive physical response.

PowerElla

| NYU Tandon Prototyping Fund | Sept 2024 - Dec 2024

- Designed a triboelectric nanogenerator (TENG) umbrella using PDMS and PTFE to harvest energy from rain and wind
- Prototyped and tested system for potential off-grid energy applications

GestureAR

|Independent Project | Jan 2024 – Feb 2024

- Built an AR-enabled device to overlay virtual glasses on user faces using OpenCV and face landmarks
- Enabled gesture-controlled LED feedback through Raspberry Pi and RPIO.GPIO integration

O.S.M.D. (Optical-Scanning-Mathematic-Service)

| Independent Project | Dec 2023 - Jan 2024

- Developed a math-solving device using Pi Camera and MathPix API for real-time problem recognition
- Displayed results on an LCD screen using Python, OpenCV, and RPIO.GPIO on Raspberry Pi with a Pi camera

Hermes Lens

|NYU EG Final Project | Jan 2023 - May 2023

- Created a live language translation device that captures text and displays translated output
- Integrated Pytesseract and OpenCV for live OCR and translation display on LCD screen
- Awarded the 2023 Gunter Georgi Award for Outstanding General Engineering Design

Experience

Secretary ICNA Summer School

| July 2023 - Present

• Spearheaded attendance management for over 90 students and teachers and developed tracking systems. Led Islamic studies instruction, boosted student engagement

Co-director at Dream Studios

| Mar 2024 - June 2024

• Directed operations and technology, managing business and technical aspects of artistic projects. Collaborated with staff to optimize studio practices, reducing exhibition costs by 29% through strategic budget management.

IT intern at UTA

| July 2022 - Aug 2022

• Completed a 5-week IT internship, mastering Azure, Windows Virtual Machine, GitHub, and Netlify. Enhanced technical presentation skills using Google Slides.

SYEP intern at MakerState

| July 2022 - Aug 2022

• Led hands-on STEAM education in TinkerCAD, Arduino, and Roblox Studio, designing projects that align with NYC youth and Department of Education standards.

Education

New York University

• Bachelor of Science in Integrated Design & Media | Expected Graduation May 2026

Skills

- Technical Skills
 - Python
 - OpenCV
 - Flask
 - o HTML/CSS/JS
 - o Git
 - Netlify

- Prototyping & Design
 - Fusion 360
 - Cura
 - o Blender
 - Adobe Suite
 - Premiere Pro
 - Lens Studio

- Soft Skills
 - Budgeting
 - Project Planning,
 - Communication
 - Team Collaboration