BIOMEDICAL ENGINEERING MAJOR

Mohammad Aarish Khan

University at Buffalo, Honors College
August 2026 – Present

Williamsville North High School
Class of 2026

kmohammadaarish@gmail.com

6 PRESENTATIONS	5 ABSTRACTS	1 PAPER	4+ LABS	600+ HOURS

01 Research

Williams Lab — CURRENT

Neurogenetic Research

Analyze GWAS data via computational pipelines to investigate the genetic basis of neurological conditions

Nushoor — CURRENT

Water Purification Project

Collaborate with a team in designing a low-cost water purification system for rural communities

Tailor system design to community-specific constraints, including limited resources, cost, maintenance, and environmental conditions

First Author Publication — 2024 – 2025

Computational Design for Bispecific Antibodies

Designed a Bispecific DuoBody antibody targeting 4-1BB on cancer cells and PD-L1 on T-cells as a potential treatment for non-small cell lung cancer (NSCLC)

DOI: 10.1109/ISEC64801.2025.11147433

Built a Streamlit-based web app that automated parts of the workflow

New York Academy of Junior Sciences — 2023 – 2024

Research Projects

Head of Ideation and Implementation for two international teams: an asteroid mining project (1st Place) and a multiple sclerosis health wearable (Project of Distinction)

Co-authored abstracts and PowerPoint presentations for both projects

Selected for the Emerging Student Researcher of the Year award

University at Buffalo Nanosatellite Lab — 2025

Kennedy Space Center Presentation

Designed electronics and programming as part of a 5-student team for a high-altitude balloon mission carrying six solar panels

Studied variation in solar panel efficiency across altitude

Presented findings at the SmallSat Conference, Kennedy Space Center (NASA)

02 Leadership

Biomedical Engineering Society
2026 – Present
Battle Bots Team Lead

Global Impact Laboratory
2026 – Present
Founding Member, Secretary

03 Awards & Honors

NYAS Emerging Student Researcher of the Year 2025
Top 5 of ~8,000 internationally
1st Place (2023)
Project of Distinction (2024)

ACS NERD Outstanding Poster Presentation Award 2025

Terra Science Fair 2025
Medal of High Honors
Office of Naval Research Award

President's Volunteer Service Award 2025
Bronze · 600+ volunteer hours

04 Conferences

Kennedy Space Center 2025 (NASA SmallSat)

iFORE 2025 · ACS NERD 2025

Terra Science Fair · IEEE ISEC 2025

Global Impact Council Conference

05 Workshops

MIT Beaver Works Summer Institute — Autonomous Cars Course

Biotech in Action — Biogen Community Lab & Lemelson-MIT

Oracle Cloud Infrastructure Gen AI Certification

Eric Pitman Summer Workshop — Intern Computational Biologist