

HADI ABDUL -

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Email: hadiabdul@college.harvard.edu

EDUCATION

Harvard University, Cambridge, MA

Incoming First-Year Student

North Carolina School of Science and Mathematics, Durham, NC

Aug 2024 - May 2026

Courses: Applications in Entrepreneurship, Mathematical Modeling, Biophysics, Organic Chemistry

GPA: 4.92

RELEVANT EXPERIENCE

World Health Organization Innovation Hub — Eastern Mediterranean Region, Research Intern *Sept 2025 - Present*

Supervisor: Dr. Ahmedali M.

- Currently mapping 80+ COVID-era digital health innovations across the Eastern Mediterranean, assessing scalability barriers including infrastructure, interoperability, and digital literacy gaps.
- Synthesizing input from 40+ regional experts to produce ranked research agendas across digital health, pandemic preparedness, and health systems strengthening.

Duke University — Big Ideas Lab (Dr. Jessilyn D., Dept. BME), Research Intern

Mar 2025 - Present

PI: Dr. Jessilyn D.

- Developed VitalWave, an open-source wearable biosensing platform for digital biomarker discovery using high-frequency physiological data acquisition.
- Integrated near-infrared spectroscopy (NIRS) sensors for real-time biochemical composition sensing.
- Collaborated with Duke BME researchers on wearable health-data analysis pipelines.

University of Oxford — Systems Biology Group (Dr. Béla N.), Co-Founder, MemoryAssist

Jun 2025 - Dec 2025

PI: Dr. Béla N. — U.S. Provisional Patent Application No. 63/755,185

- Co-Founded MemoryAssist, an AI-powered wearable to support Alzheimer's and dementia patients with real-time navigation, face recognition, and caregiver alerts.
- Piloted two units at Savoy Nursing Home, MA; recognized Congressional App Challenge Winner (CD 12, 2024)

Katrick, Scotland – Passive-Cooling Technology with Clinical Application, Developer

June 2023 - Jan 2025

Supervisor: Mr. Farshad Q.

- Assisted Katrick's vibration-powered passive cooling module: fixed a 12% thermal-limit overshoot by identifying a 0.3 mm interface causing >40% of thermal resistance.
- Contributed to Katrick + iomart's award-winning live deployment at Glasgow data centre, ~70% reduction in energy, ~100 tonnes of carbon emissions avoided — Digital City Awards: "Best Use of Emerging Technology."

Co-Founder & Engineer, Lucent — PFAS Water Filtration System

Sep 2024 - Mar 2025

- Founded 3D printable PFAS water filtration system with 8 filters deployed delivering ~600,000+ liters of clean water annually across partner sites including Daffodils Ladies Hostel in Koche, India & Africa Safe Water Foundation in Kenya — advanced to Diamond Challenge Grand Finals (Top 60/3,400 innovations)
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OTHER ACHIEVEMENTS & ACTIVITIES

- **2026 Coca-Cola Scholar:** Recognized among 150 of 100,000+ applicants nationwide to receive \$20,000 scholarship for leadership, service & academic excellence **Feb 2026**
- **USA Mathematical Olympiad (USAMO) Qualifier (Top 250 of 300,000):** Ranked among the top 250 high school mathematicians nationwide **Jan 2026**
- **U.S. Physics Olympiad (USAPHO) Silver Medal (Top 90 of 6,000):** Ranked among the top 90 high school physics students across the U.S. **April 2025**
- **Diamond Challenge Grand Finalist (Top 60 of 3,400 teams):** Recognized for engineering Lucent, equity-driven PFAS water filtration system **Mar 2025**
- **TEDx Speaker:** Delivered a talk titled "Breaking Through Perceived Limits." 8.6k YT Views **Oct 2024**

