

Diamond Mensah



[diamond-mensah](https://www.linkedin.com/in/diamond-mensah)



[@DiamondMensah23](https://twitter.com/DiamondMensah23)



diamond.mensah@tufts.edu

Education

Tufts University School of Engineering, Medford, MA
GPA: 3.77, Declared Major: Biomedical Engineering (B.S.)

Expected Graduation: May 2023

Relevant Course Work: Biomedical Concepts, Physiology, Biothermodynamics, Genetics, Immunology, Principles of Controlled Release and Drug Delivery, Design of Medical Instrumentation, Biomechanics, Biostatistics, Modern Optics and Photonics, Engineering Design Process

Extracurriculars: Society of Women Engineers (Social Events Chair), Biomedical Engineering Society (Member), Black Student Union (Member)

High School for Math, Science, and Engineering (H.S.M.S.E.), New York, NY
High School Diploma

Graduation: June 2019

Work Experience

Undergraduate Learning & Teaching Assistant

September 2020 - Present

Department of Physics and Astronomy at Tufts University, Medford, MA

- Provide weekly instruction on new concepts to Physics 11 students
- Support current Physics 11 students in completing homework and preparing for physics exams
- Report summaries of students' performance during office hours back to professors to help address areas of improvement for class and Learning Assistant program

Engineering Dean's Office Assistant

September 2019 - Present

Tufts University School of Engineering, Medford, MA

- Greet faculty, students, and visitors who drop into the Dean's office
- Provide administrative support to Dean's office staff by answering the phone and responding to email inquiries
- Plan and perform duties with school events, faculty meetings, and other ad hoc projects as assigned

Orientation Support Staff

August 2021 - September 2022

Office for Campus Life (OCL) at Tufts University, Medford, MA

- Assisted OCL faculty in organizing engaging events for First years and transfer students
- Supervised events to ensure Tufts COVID Requirements were being upheld
- Aided in set-up and takedown of multiple events over the course of Orientation week
- Spoke with incoming first year and parents about Tufts and offered insight/assistance when needed

Research Experience

Undergraduate Researcher

February 2021 - Present

[The Madeleine Oudin Lab](#) at Tufts University School of Engineering, Medford, MA

- Investigating the connections between obesity, the tumor & adipocyte microenvironments, and breast cancer metastasis properties.
- Attend weekly lab meetings and Journal clubs to discuss new and relevant research in relation to current lab projects
- Work closely with Graduate students to aid with current lab projects and continued Gantcher Summer Scholar's research into the academic year

Basic Science Institute Summer Intern

May 2022 - August 2022

[The BIT Lab](#) at Johns Hopkins Medicine, Baltimore, MD

- Awarded a stipend to spend 10 weeks rotating in a biomedical lab at the Johns Hopkins School of Medicine
- Investigated the use of Optical Coherence Tomography (OCT) technology to assess cervical tissue mechanics for Preterm Birth risk analysis
- Designed and built a frictionless, force-loading device to apply controlled stress onto experimental samples
- Attended lab and small group meetings to present progress reports to superiors (Dr. Xingde Li and Dr. Hyeon-Cheol Park)
- Conducted literature searches into current cervical mechanics studies, OCT technologies, as well as current obstetrics and gynecology research to become familiar with technical and biological aspects of this study
- Was invited to present a poster presentation at The Leadership Alliance's 2022 National Symposium

Gantcher Summer Scholar

May 2021 – August 2021

Tufts University School of Engineering, Medford, MA

- Investigated the role a high-fat diet plays in promoting metastasis in triple-negative breast cancer patients using a mouse model in Assistant Professor Madeleine Oudin's lab
- Worked alongside graduate student Sydney Conner to learn protocols and to complete research outlined in my summer research proposal
- Prepared a 15-minute talk to present my research at the end of the summer at a 3-day long virtual symposium
- Prepared a poster to present my research at a Fall Poster Session

CEYE Research Scholar

September 2017 – June 2019

The Center for Excellence in Youth Education at the Icahn School of Medicine at Mount Sinai, New York, NY

- 2-year biomedical research course cultivating laboratory skills in DNA/Biotechnology
- Attended daily lectures and perform corresponding laboratory experiments
- Taught and mentored middle schoolers about organs, dissections, and lab procedures through Day With A Scientist Program
- Attended workshops on research and peer-review journals in the Levy Library
- Prepared for professional work experience through workshops and one-on-one sessions with the CEYE staff
- Observed Mount Sinai's Radiology Department as part of my placement

Research Assistant

June 2018 – August 2018

MDIBL High School Summer Internships, Mount Desert Island Biological Laboratories, Maine

- Investigated the significance of SH3D21 in the development of human kidney disease using a zebrafish model
- Cared for and bred zebrafish for experimental studies
- Worked quickly and efficiently using microinjection technique to implant morpholinos in zebrafish eggs
- Assisted establish scientist and doctors in a professional lab to complete the research and prepare for a symposium + poster presentation

Volunteer Experience

Co-Manager

January 2021 – August 2021

YouCanToo at Tufts University, Medford, MA (Virtual)

- Assisted the President and Vice President in capturing pictures/videos from YouCanToo sessions
- Oversaw group discussions concerning current events and participants' experience with YouCanToo
- Attended monthly sessions with Tufts YouCanToo leadership

Student Mentor

August 2020 – August 2021

South Florida (SoFlo) Scholars, Miami, FL (Virtual)

- Aided first generation/low income students from the Miami-Dade County Public School district through the college application process
- Organized weekly 30 minute meetings with mentee(s) to provide insight and resolutions for academic troubles
- Provided feedback monthly to SoFlo program organizers to ensure improvement

Awards, Honors, & Events

- **Biomedical Engineering Society Annual Meeting Oral Presentation (October 2022)**, presented my work from the Oudin Lab at Tufts University titled '*Investigating the Role of a High Fat Diet on TNBC Invasion*' at the 2022 Annual Meeting in the Cancer Technologies: Mechanisms of Cancer Cell Migration and Invasion section.
- **The Leadership Alliance National Symposium Poster Presentation (July 2022)**, presented my work from the BIT Lab at Johns Hopkins School of Engineering/Medicine entitled '*Use of Ultra-sensitive Optical Coherence Elastography for Pre-Term Birth (PTB) Risk Assessment*' at the annual summer symposium.
- **Tufts Goldwater Nominee & National Recipient (March 2022)**, one of the most prestigious awards in the United States for undergraduate students studying the natural sciences, engineering, and mathematics. Nomination is given to high-achieving Tufts sophomores and juniors who present with intellectual promise and a commitment to conducting independent, cutting-edge research.
- **Tufts Audrey Butvay Gruss Science Award (March 2022)**, awarded annually at Tufts University, with a preference for female students, to an individual who has demonstrated outstanding academic work in any of the sciences and who is a scholarship recipient.
- **AfroBiotech 2021 Invited Rapid Poster Fire Talk (October 2021)**, presented a 3-minute summary of my research in the Oudin Lab at Tufts University titled '*Investigating the Effects of a High Fat Diet on Triple Negative Breast Cancer Invasion*' at the 3rd Annual AfroBiotech Conference in the Microbiome/Immunology section
- **Nathaniel Gantcher 2021 Summer Scholars Grant Recipient (March 2021)**, awarded to rising juniors and seniors

at Tufts university to pursue 10-week independent research projects. Recipients must have demonstrated an ability to balance multiple demands, the relevant skills and knowledge required to excel in conducting their research proposal, and a particularly compelling motivation for wanting to conduct their study

- **Tufts University Dean's List Fall (2019 - 2021) & Spring (2020 - 2022)**, for maintaining an honor's average (3.4) minimum for the academic term
- **Questbridge 2018 National College Match Finalist & Recipient (December 2018)**, Honor is distributed by a demonstrated commitment to academic excellence and determination to succeed along with the university's personal qualifications for enrollment. I received a full 4-year scholarship to Tufts University's School of Engineering

Skills

- **Languages:** Beginner German, English, Conversational Twi
- **Lab Skills:** Cleaning, maintaining, and calibrating equipment, Sample Collection and Prep, Animal Care (Zebrafish), CRISPR-Cas9, Tissue sectioning, Cell Thawing-Seeding-Passaging
- **Social Skills:** Strong verbal presentation skills, Mentoring, Tutoring
- **Other:** Strong knowledge of Google Suite and Microsoft office (Outlook, Word, Powerpoint, Excel, ...)