

# Enrique Ernesto Rodriguez

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## EDUCATION

**Tufts University, Medford, MA** 2019 - 2023  
*Bachelor of Science in Biomedical Engineering, Expected May 2023*  
*GPA: 3.60, Dean's List, BEST Scholar, Kamin Scholar, HSF Scholar, The Tufts DEIJ Service Award*  
*Courses: Biomechanics, 3D Printing, Diff. Eq., Organic Chem, Biochem, Electrical Circuits, Physiology, Physics, Optics & Photonics, BioStatistics, MultiVar Calc, Medical Devices, Immunology, Drug Formulation, Biomaterials*

## WORK EXPERIENCE

**Laboratory for Lymphatic Biology & Bioengineering at Georgia Tech's, SURE Research Scholar** 2021- 2022

- Conducted 10 week research project testing lipid nanoparticle selectivity for lymphatic endothelial cells *in vitro*.
- Participated in weekly seminars on career, toured labs, and learned about graduate school.
- Award: Poster presentation at the 2022 National BMES Conference.

**Center for Engineering Education and Outreach at Tufts, Outreach Learning Fellow** 2021 - Present

- Teach engineering and design concepts to students in 3-6th grade at the local YMCA.
- Discussions and training on combining antiracism and justice into engineering education at all levels.

**Center for Engineering Education and Outreach at Tufts, Equity Learning Assistant** 2021- 2022

- Lead course discussions on combining antiracism and justice into computer science and tech in Python.

**Shen Lab at Tufts University School of Medicine, Undergraduate Researcher** 2021 - 2022

- Optimized Image analysis pipeline for single spore analysis of *C.Difficile*
- Developed time lapse movies and analyzed complex data using MATLAB, Python and Fiji.
- Contributed in weekly lab meetings and DEI initiative

**Center for Science Education at Tufts Medical School, Mentor** 2020 - 2022

- Design curriculum to empower underrepresented students in medicine to excel in mini med school program.
- Mentor high school students in summer programs and through the college application process.

**Kaplan Lab at Tufts University, Volunteer Research Assistant** 2021

- Process silk and Create silk scaffolds that model the human Blood Brain Barrier, under Philip Houtz.

**Physics Department at Tufts University, Learning Assistant** 2019 - 2021

- Facilitated and hosted office hours with the intent of enhancing students' learning of Physics 1 and 11 subjects.
- Enhanced learning experience for students in Physics 1 and 2 in a virtual learning space.

## EXTRACURRICULAR ACTIVITIES

**Tufts Community Union Senate, CO 2023 Senator** 2021 - Present

- Advocate and Represent students in the Class of 2023, by allocating resources and writing resolutions.
- Initiate projects to increase accessibility and enhance student education through the education committee.
- *Allocation Board member*: create budgets and allocate funds for all clubs on campus.

**Tufts Kidney Disease Screening and Awareness Program (KDSAP)** 2020 - 2022

- *Treasurer*: Implemented and controlled allocations of resources in the club for screening events, negotiated with Tufts Treasury in order to create a budget for the KDSAP
- Developed and implemented ideas pertaining to fundraising, community outreach, and educational/bonding events as a member of the *Outreach and Education Committee*.

**Tufts STEM Ambassador** 2020 - 2022

- Advocate for Diversity, Equity, Inclusion, Justice and Representation in STEM.
- Created presentation and activity on STEM to present at Boston, Medford and Somerville Public Schools.

## COMMUNITY INVOLVEMENT

**Bridge to Engineering Success at Tufts (BEST)** 2019 - Present

- Mentor, Physics tutor, advocate, and active member in current BEST cohorts, work closely with the director.

**StAAR Center at Tufts Student Advisory Board** 2021 - 2022

- Liaison and representative of student body for Student Accessibility and Academic Resources(StAAR)
- Engage in conversations on how to increase accessibility and promote events of StAAR

## LAB SKILLS

Tissue and Cell Culture, Spore Purification, Nanoparticle Fabrication, ELISA Cell Viability Assay, Microscopy, Western Blot, Gel Electrophoresis, Cryopreservation, Mass Spectrometry, Chromatography, Flow Cytometry, Hydrogels & Scaffolds, 3D Printing, Microfluidics, Laser Cutting, Fusion360 (CAD), MATLAB, R Studio, Fiji, Python, Microsoft Office.