# Durga Moorthy durga.s.moorthy@vanderbilt.edu (669) 246-8629

#### **EDUCATION**

Vanderbilt University — Bachelor of Biomedical Engineering, 3.74 GPA

Aug 2024 - Present

Relevant Coursework: APCSP, APCSA, Introductory Programming for Engineering and Scientists, Rapid Prototyping, Engineering Management: Applied Behavioral Science, Innovations in Biomedical Engineering

Saint Francis High School — 4.42 GPA, High Honors

Aug 2020 - May 2024

#### SKILLS AND INTERESTS

Autodesk Fusion, Inventor, Adobe Photoshop, Python, Java, HTML-CSS, MATLAB

Shop skills: Lathe, drill press, cold/chop/band/jigsaw, 3D printer, CNC router/vinyl cutter

**Bilingual:** Fluent in written and spoken English and Tamil, basic Spanish, **Lifeguard:** worked for 2 summers, American Red Cross CPR/AED certified

#### **PROJECTS**

## First Robotics Competition— Mechanical Design

Jan 2021 - May 2024

**Intake Mechanism** - designed a lightweight, compliant floor-intake system to acquire game pieces from an unpredictable field, prototyped with different surface materials to best grip game pieces

**Rotary Joint Optimization** - redesigned a rotary joint to be cheap, 3D printable and hollow to optimize for future dual-ended rotary arm applications

**Elevator** - implemented a vertically tunneling, spring-based elevator system capable of lifting 100+ pounds and stowing within tight height constraints

# TEDx — Speaker and Program Director

Nov 2022- May 2024

Selected to deliver a TEDx talk about experience with childhood alopecia

Directed TEDx program that reached over 1 million viewers, hosted speaker workshops and events by coordinating with external coaches and mentors, and oversaw event planning by leading student subgroups and working alongside faculty

### WORK EXPERIENCE

# Veterans Affairs Hospital — Medical Pathology Intern

May - Aug 2023

Selected as one of four students to learn educational and functional medical morgue tasks including dissection, autopsy, and suture procedures. Shadowed OR department cases & diagnostic conferences, interacted with patients daily, learned alongside medical residents in rotating fields (podiatry clinic, BME implant applications, radiology clinic, operating room, emergency medicine etc.)

## The Coder School South Bay — Computer Science Teacher

May 2022 - Jun 2024

Built custom lesson plans for diverse skill-levels of students aged 7-85 in Python, Scratch, Java, basic editors/Game-based environments and APCSA/APCSP prep

## Panorama Research Lab — Student Shadow

May 2023

Shadowed gene therapy cancer researchers and learned lab skills including using instruments like spectrophotometers, conducting gel electrophoresis, and fluorescent microscopes to observe tagged cancer cells

#### **LEADERSHIP**

Water Polo Athlete — Varsity Team Captain/2x Junior Olympian

May 2020 - May 2024

Outstanding Academic All American Scholar - Issued by USA Water Polo, St. Francis Scholar Athlete Award

#### Lancer Robotics — Senior Board Member

August 2023 - May 2024

Made vital design decisions to guide a build team of 50+ members on a 6 week time constraint and taught new members fabrication skills/CAD implementation through an educational robotics pre-season program called Soccerbots