### UMANG SHARMA

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#### **EDUCATION**

# Princeton Day School, Princeton, NJ | High School Diploma

Sep 2022 – Jun 2026

- SAT Score: 1570 | Reading & Writing: 770 | Math 800
- Relevant Coursework AP Physics C: Mechanics, Post-AP Computer Science, Calculus AB, AP CSA, AP CSP (Self), OOP
- Activities: CS Club (Co-head), Makers' Club (Co-head), Student Council (Sec-Treasurer), <u>Pickleball Club (Co-head)</u>, Science Olympiad A Team, VEX Robotics, Varsity Tennis

## Harvard University - Secondary School Program

Jun 2024 – Aug 2024

Courses: Wearable Devices & Computer Vision (A); Robotics, Autonomous Vehicles & AI (A)

#### PROFESSIONAL EXPERIENCE

## Founder, Lead Engineer, & CEO, Jdable

Nov 2022 - Present

• Founded a nonprofit delivering affordable assistive tech to special needs communities, impacting 1,000+ beneficiaries, raising \$500K+ in assets, and partnering with 25+ nonprofits & corporations, including Google, Canva, and Stripe. Designed 10+ products, including tactile geometry kits, IoT canes, braille keyboards, and autonomous wheelchairs.

# Cofounder & Chief Impact Officer, Nivaran

May 2025 - Present

• Developed initiatives to enhance accessibility through IoT solutions and community-driven design workshops.

# Founder & Mentor, PC Workshop

Sep 2019 – Present

Conducted 7+ workshops across the US & India, teaching 1,000+ students PC building and coding basics.

# **Executive Board Member, Student Code Alliance**

Mar 2024 - Present

• Established 64 branches in 6 countries, tutored 4,500+ youth, and hosted tech hackathons for 250+ participants.

# Project Lead, Recompose: Cognitive Composting

2024 - Present

• Created an AI-based system using depth vision to reduce food waste in schools by 37%.

### Camp Counselor & Developer, Princeton Day School

Summer 2022 & 2023

Instructed and managed children in squash camp with participants aged 5 to 13, and developed IoT squash training games for
player development.

### Tech Intern, Tech Mahindra Makers' Lab

Jun 2023 - Aug 2023

Developed ESP32-based connectivity for intelligent robots, enabling seamless IoT integration, collaborating with engineers to
prototype assistive robotic systems.

# R&D Intern, Pyrotech Electronics Pvt. Ltd.

Aug 2022

 Assisted in assembling network systems and soldering PCB components for IoT innovations, and provided feedback during client R&D discussions.

# RESEARCH

#### Team Lead, Tufts IDEA Labs

Jun 2025 - Present

Working under Prof. James Intriligator on a multi-sensory VR platform enhancing accessibility for individuals with synesthesia.

### Research Intern, Harvard University

Aug 2025 - Present

• Working under Prof. Salim Afshar on an IP65 heat-resistant smart switch enabling mobility-limited users to control saunas via adaptive IoT.

#### **Independent Published Researcher**

2025

- IoT Smart Cane for the Visually Impaired Presented at IEEE MIT URTC; a low-cost navigation aid for obstacle detection.
- Recompose: A Real-Time Vision System to Reduce Food Waste Published in IJSR, peer-reviewed study.

# **HONORS AND AWARDS**

- *Hackathons:* UPenn Classic First Place Team, Big Red Hacks (2nd, 2025), PantherHack Best Education (2025) & Social Hack (2024), <u>HackBAC 3rd \$500 Prize</u> (2024), PDS Hackathon 1st in Hardware (2023).
- Science & Engineering: CREST Gold Award, 3rd Overall Mercer Science & Engineering Fair (2024), APA Psychology Award (2025) for Recompose.
- Patents: Assistive Braille Keyboard & Navillo Smart Wheelchair (Indian Patent Office).
- Service: Gold Presidential Service Award & PDS Silver Award for 250+ volunteer hours.
- Other: Nomination for Best Tech Crew by Montclair State University & CollegeBoard Rural and Small Town Award