# **Shrish Choudhary**

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## **Education**

Massachusetts Institute of Technology, Cambridge, MA

August 2023-May 2027

Bachelor of Science

Coursework: Intro to Programming, Discrete Math, Intro to Algorithms, Fundamentals of Programming

Mission San Jose High School, Fremont, CA

August 2019-June 2023

GPA: 4.45

Coursework: Discrete Math: A, Multivariable Calculus: A, Linear Algebra: A, AP Computer Science: A

## **Experience**

## Machine Learning on Android Phones, Cambridge, MA

November 2023-Present

Student Researcher

- Tuned and tested an Android app that utilized TensorFlow to analyze surgical wounds and determine infection.
- Used in rural Rwandan villages to decrease need for long trips to hospitals.

## **Projects**

**Robotics** 2019-2023

- Mask Enforcer Turret
  - O Custom-designed and 3-D printed projectile firing mechanism that incorporated a custom trained mask detection model to detect and throw projectiles at maskless people.
- Tennis Roomba
  - O Designed and machined a robot that utilized PID controls and odometry for spline paths along with a trained model using TensorFlow to detect and collect balls on a tennis court.

## **Tennis Shot Detection Model**

2023-2024

2023-Present

• Created a multiclass detection model using PyTorch and a custom collected dataset. Leveraged transfer learning to create a model to analyze professionals and find patterns in shot-selection.

#### Performance Tracker

• Created and deployed a Django app with a python web scraper to record and analyze different ranking systems to centralize data and find the most reflective system for different tennis players.

#### **MIT Men's Varsity Tennis**

August 2023-Present

# **Awards & Accomplishments**

## **Eagle Scout of America**

May 2020

• Planned, fundraised, and lead service project to create display cases for Natural History Museum

## ACLU Volunteer

2021-2023

• Lead program to guide upcoming tennis juniors raising 4,000 dollars for the ACLU foundation.

## **Skills & Interests**

Languages: Python, Java, C++, HTML, JS, CSS, REACT JS

Frameworks/Tools: PyTorch, Django, TensorFlow, Vuforia, OpenCV, Git, Fusion 360, Blender