

Shrish Choudhary

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Education

Massachusetts Institute of Technology, Cambridge, MA **Expected Graduation, May 2027**

- GPA: **3.84/4.0**
- BA in Computer Science, Minor in Business
- **Related Coursework:** Discrete Math, Intro to Algorithms, Fundamentals of Programming, Design and Analysis of Algorithms, Intro to Machine Learning, Corporate Financial Accounting

Experience

Theoretical Physics Robotics, Cambridge, MA **June 2024-Present**

Undergraduate Researcher

- Programmed the mechanics and computer vision of a robotic arm to autonomously arrange and optimize optical arrangements on an optical breadboard

MIT Edgerton Center, Cambridge, MA **November 2023-May 2024**

Undergraduate Researcher

- Tuned and tested an Android app to analyze surgical wounds and determine infections locally using PyMed libraries in partnership with Harvard Medical School.

Projects

Robotics **2019-2023**

- Mask Enforcer Turret
 - 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
 - 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.
- FIRST **2017-2023**
 - Founded and managed a state-level robotics team and coded drivetrain and attachments.

Tennis Shot Detection Model **Winter 2023**

- 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 **2023-Present**

- Created and deployed a Django app with an AWS-RDS PostgreSQL database and a python web scraper to record and analyze discrepancies in different tennis ranking systems.

Awards & Accomplishments

- **AWS Cloud Practitioner Certificate** **February 2024**
- **MIT Men's Varsity Tennis** **August 2023-Present**
- **Eagle Scout of America** **May 2020**

Skills

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

Frameworks/Tools: PyTorch, Django, TensorFlow, Vuforia, OpenCV, PostgreSQL, AWS, Git