ARSH SINGH

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Education

Cornell University **August 2024 – Present**
Bachelor of Science in Computer Science, Dyson Business Minor for Engineers *Ithaca, New York*

Relevant Coursework

- *Object-Oriented Programming and Data Structures
- *Multivariable Calculus for Engineers
- *Introduction to Machine Learning
- *Trends in Modern Web Development

(* = in progress)

Experience

Future Engineers Academy **August 2023 – August 2024**
Founder, Head Instructor *Hicksville, New York*
- Founded and led FE Academy, a youth organization focused on STEM education (501(c)(3) status pending).
- Designed and taught interactive STEM lessons to upper elementary and middle school students at no cost.
- Conducted three successful week-long summer sessions at a public library with high engagement.
- Managed social media presence and shared STEM-related content (@futureengineersacademy).

Bethpage High School **June 2022 – August 2023**
Student IT Helper *Bethpage, New York*
- Volunteered for the IT department, assisting with technology setup and maintenance.
- Organized and configured new district devices including Chromebooks, SMART Boards, and desktop computers.
- Worked alongside graduate students for 25 hours/week during summers and occasionally throughout the school year.

SnappyXO **July 2022 – August 2022**
Teaching Assistant *Stony Brook, New York*
- Volunteered as a teaching assistant for the 2022 CEWIT MTRC SnappyXO Robotics Camp under Dr. Anurag Purwar.
- Assisted with lessons on robotics, mechanical design, electronics, programming, and physics using SnappyXO kits, Arduino IDE, and MotionGen.

Projects

NFC Attendance System | *Python, Java, DigitalOcean* **December 2023**
- Developed an attendance tracking system for a high school robotics team, using NFC stickers, a Java Servlet on DigitalOcean, and a Raspberry Pi sensor client with a TKinter UI in Python.
- Integrated with a Web-Scraping Discord Bot to relay attendance data and feature leaderboards to the team.

Pulmonary Tuberculosis ANN Detection | *Python, Tensorflow* **December 2022**
- Created a TensorFlow-based Python program to classify Pulmonary X-rays for early Tuberculosis detection with over 85% accuracy.
- Authored a research paper and received an Honorable Mention at the Long Island Science Congress.

Technical Skills

Languages: Python, Java, C#, HTML/CSS
Developer Tools: Visual Studio Code, IntelliJ IDEA, OnShape
Technologies: Git, Linux, Unity, Oracle Cloud, DigitalOcean, CAD

Leadership / Extracurricular

FIRST Robotics Competition **September 2020 – May 2024**
Captain, Driver, CAD Lead *Team 2869: The Regal Eagles*
- Qualified for the 2024 World Championships and ranked #19 in the international division.
- Led the team to win the Impact Award, Engineering Inspiration Award, and Robot Finalist in 2024.
- Mentored three junior-level robotics teams from Long Island.

Varsity Tennis **September 2021 – June 2024**
Captain, Singles Player *Bethpage High School Varsity Boys Tennis*
- Captained the team and played as a top singles player.
- Provided private tennis lessons during the summer of 2024.

SeaSweep **September 2023 – June 2024**
Chief Technology Officer *Virtual Enterprises International*
- Directed the technology department, overseeing web development, newsletters, and video editing.
- Competed in the International Competition at the Javits Center in New York City.