Aaryan Kaushik

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Educational Qualification

- **Indian Institute of Technology, Hyderabad** (2021-2025)
  BTech in Computational Engineering
  CGPA: 9.33

Skills

- **Programming**
  - Proficiency in C, C++, Python, JavaScript programming languages
- **Web Development**
  - Experience in HTML, CSS and JavaScript languages
  - ReactJS library
  - Django backend web framework
- **Machine Learning**
  - Proficiency in Deep Learning for Computer Vision using CNN
  - TensorFlow, PyTorch, OpenCV, Mediapipe
  - Experience in Deep Reinforcement Learning
  - OpenAI Gym
  - Time series predictions using RNN
- **Soft Skills**
  - Experience in debate activities
  - Team Work
  - Communication

Work Experience

- **AI-ML Intern @ Foliofai** (*Feb'23 - Present*)
  - Working on Deep Reinforcement Learning for portfolio management
- **Team Member of Inter-IIT Sci-Tech Meet 2023** (*Dec'22 - Feb'23*)
  - Worked on Computer Vision part of Grow Simplee (High Prep) problem statement.
  - Represented IIT Hyderabad with a team of 30 students at the meet held at IIT Kanpur.
- **ML Coordinator @ Google Developers Student Club, IIT Hyderabad**
  (*Jan'23 - Present*)
  - Conducting various community sessions on machine learning
  - Working on projects related to computer vision
- **Core Member @ Epoch, IIT Hyderabad** (*July'22 - Present*)
  - Epoch is the AI-ML club of IIT Hyderabad
  - Working on projects related to computer vision and reinforcement learning
- **Core Member @ Electronica, IIT Hyderabad** (*July'22 - Present*)
  - Electronica is the electronics and signal processing club of IIT Hyderabad
  - Working on making use of Raspberry Pi and Computer Vision for real world applications.
- **Teaching Assistant for Introduction to Programming, IIT Hyderabad**
  (*Dec'22 - Feb'23*)
  - This course introduces students to the basics of general programming and programming in C language.

    - Dr. Fahad Panolan, Dr. Oves Badami and Dr. Kotaro Kataoka were the course instructors for this course.
- **Teaching Assistant for Fundamentals of Scientific Computing, IIT Hyderabad**
  (Dec'22 - Feb'23)
    - This course introduces students to the basics of scientific computing along with programming in python.
    - Dr. Saswata Bhattacharya and Dr. Niranjan S Ghaisas were the course instructors for this course.

Projects

- **Website for Face Detection**
    - A project to combine web and ML. Used *mediapipe* and *OpenCV* for face detection and *Django* framework as backend.
    - For more details, have a look at the git repository.
- **Hand Gesture Controlled RC Car**
    - Used Raspberry Pi microcontroller for controlling RC Car. Used *socket* python library for making server on Raspi and client on my laptop. Used *mediapipe* and *OpenCV* for hand detection.
    - Check out a two minute demo.
- **Chess Bot** (currently working on it)
    - A chess playing bot to be built using Raspberry Pi as microcontroller. We will use *TensorFlow* for chess piece detection, *StockFish* for chess playing algorithm and a robotic hand for moving pieces.

Relevant Courses

- **Computer Science:** Data Structures, Operating Systems - I, Operating Systems - II
- **Electrical:** Digital Circuits, Hardware Description Language (Verilog)
- **AI and Scientific Computing:** Fundamentals of Scientific Computing, Numerical Methods - I, Numerical Methods - II, Basics of Machine Learning, Optimization Techniques, Computational Methods in Material Science

Achievements

- **JEE Advance 2021:** Secured All India Rank 1171.
- **JEE Mains 2021:** Secured All India Rank 2062.
- **KVPY 2021:** Secured All India Rank 1053.
- **NEST 2021:** Secured All India Rank 13.

Extra Curriculars

- **Core Member @ Debate Club, IIT Hyderabad**
    - I love to view a topic from different angles. Debate is one of the best ways to get it.