Aman Jayesh

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Education

International Institute of Information Technology, Hyderabad **Telangana**

Bachelor of Technology in Computer Science and Engineering; CGPA: 8.05 *July 2024 – May 2028*

- **Relevant Coursework**: Operating Systems and Networks, Data Structures and Algorithms, Computer Systems Organization, Introduction to Software Systems, Embedded Systems Workshop, Probability & Statistics.

Kuriakose Elias English Medium School **Kottayam, Kerala**

Class XI - XII; Percentage: 98.5%

Experience

Apex Mentor – IIIT Hyderabad **July 2025 – Present**

- Selected to guide a group of ∼30 freshers, conducting bi-weekly interactive sessions to facilitate their academic and social adaptation to college life.

Member – OSDG (Open Source Developers Group) IIIT Hyderabad **August 2025 – Present**

- Active member of the open-source community at IIITH; assisted in organizing a Google workshop on campus as part of OSDG.

Projects

Audio Guided Microbot | *ESP32, Keyword Spotting, C++* July 2025 – Present

- Implemented Keyword Spotting on an ESP32-controlled microbot using a novel memory-efficient **Multi-Scale Temporal Gating (MSTG)** mechanism.
- Optimized for robustness in high-noise conditions; A Research paper on the MSTG mechanism is currently in progress.

Boo - Multiplayer Survival Game | *C, Socket API, RayLib* Megathon 2024

- Built a fully functional multiplayer survival co-op game entirely in **C** within 24 hours **(2nd Place)**.
- Implemented networking using **Socket API** to handle client-server communication and game state synchronization.

AI Generated Content Detection System | *Python, Scikit-Learn* Build2Break 2025

- Developed an open-source AI-generated content detection system in a 12-hour hackathon **(1st Place)**.
- Engineered an ensemble of open-source models to accurately classify multi-modal AI generated content.

Respire | *Deep Learning, ResNet, Signal Processing, Librosa* November 2025 – Present

- Developing a lung-sound classification model to identify conditions (wheezing, crackle) using the **HF_Lung_V1** dataset.
- Utilizing signal processing techniques to feed Gammatone, Tkeo, and Mel spectrograms combined with CWT scalograms into a ResNet50v2 architecture.

Technical Skills

Languages: C, C++, Python, SQL
Libraries & Frameworks: TensorFlow, Scikit-Learn, Pandas, NumPy, Matplotlib, Librosa, Raylib
Tools & Platforms: Git, GitHub, ESP32, Edge Impulse, Socket API
Certifications: Machine Learning Specialization (DeepLearning.AI - Stanford)

Achievements

- Secured All India Rank **1261** in JEE Mains 2024.
- Achieved All India Rank **2341** in JEE Advanced 2024.
- Won **1st Place** (20,000 Rs) in Build2Break ’25, a hackathon organized by OSDG-IIITH.
- Won **2nd Place** (15,000 Rs) in Megathon ’24, a hackathon organized by E-CELL IIITH.
- Kerala State Team Chess Champion.