SUBHAM JALAN

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Education

B.Tech in Computer Science & Artificial Intelligence - Plaksha University, Mohali — **CGPA**: 9.84 — 2026
12th CBSE (Science) - Jayshree Periwal High School, Jaipur — **Percentage**: 98.4% — 2022
10th CBSE - Assembly of God Church School, Bettiah — **Percentage**: 96.6% — 2020

Work Experience

ML Intern, CTLC, Plaksha University — Jun 2024 - Current
- Producing a mobile application using **React Native** for evaluating non-verbal communication cues using video feeds.
- Implementing a multi-modal approach, utilizing **CV**, **LLMs**, and **LSTMs** to output scores for 4 distinct assessment criteria.

Summer Intern, IIT Bombay — May 2024 - Jul 2024
- Engineered a novel **ML** system, for automated manipulation of a **UR5** robot as part of a **team of 4**.
- Generated driver code using **Gemini** and **ROS**, using **FastAPI** for integration, reducing development time by **50%**.
- Improved the robotic manipulation time by over **200%**.

UG Research Fellowship in Metaverse and Gaming, DaveAI — Feb 2023 - Aug 2023
- Constructed a simulation of a **multi-network queue** in a **team of 7**, optimizing decision-making using **digital twins**.
- Designed **20+** game objects - wrote classes in **Unity** and **C#**. Programmed the front end for deployment in **HTML** and **JS**.
- Presented the project at **Sangam Initiative (DoT)**, Mumbai, aiding in the design of human-behavior models in the **metaverse**.

Projects

Deception Detection via non-Intrusive Modalities | *Dr. Siddharth S* — Jan 2024 - Present
- Architected an **ML** framework, in a **team of 3**, for deception detection using non-intrusive methods, achieving **68%** accuracy.
- Extracted and analyzed over **30 features** across video, audio, and text, identifying key features such as **Action Units**, **Gaze Angle**, **MFCCs**, **BoW**.
- Utilized **OpenFace**, **Scikit-Learn**, **Librosa**, and **PyTorch** for development.

OpticGym | *Innohacks, KIET University* — Apr 2024 - May 2024
- Developed an **AR** application for gamification of **eye exercises** in a **team of 4**.
- Leveraged **Unity** and **ARKit** to create **5** exercise modules for iOS.
- Achieved an average daily **playtime** of **15 minutes** under **1 hour** of guided playing, tested in a group of **40**.

AutoPatrol | *Dr. Rucha Joshi* — Aug 2023 - Dec 2023
- Devised an innovative system for **50%** faster patrol verification of guards using **access point** connectivity in a **group of 4**.
- Tech Stack: **FastAPI** for backend, **Supabase** (SQL) for DB, **Streamlit** for web portal, and **React Native** for mobile application.
- Increased **patrol completion** rate by **12%** for a pool of **50** guards over **2 weeks** of testing.

Insuliv | *Innov8, JECRC University* — Sep 2023 - Sep 2023
- Innovated a mobile application for **diabetes tracking** using fitness activity and food intake levels.
- Used **FastAPI**, integrated **OCR** (Mindee), blood-sugar prediction (**Tensorflow**), data instream (**Google Fit**), report-creation (**Matplotlib**) and food recommendations (**Langchain**). Deployed using **Docker** on **Render**.
- Achieved **58%** accuracy for blood-sugar prediction, optimizing an **LSTM** model using **7** features.

Positions of Responsibility

Organizer, Prayas (Tech-Fest), Plaksha University — May 2024 - Present
Overseeing a **team of 7** for the marketing and social media management of the first inter-university fest.

Vice President, LEAP - AI Club, Plaksha University — Oct 2023 - Present
Coordinated 3 workshops, initiated 4 projects, and increased social traction by **300%**, leading a team of 15.

Core Lead, Digital Twins Technology Lab, Plaksha University — Oct 2022 - Present
Supervised a **team of 4** to develop **3 digital twins** of mathematical and physical phenomena for industry and educational purposes.

Emerging Technologist, United Nations Millennium Fellowship — Aug 2023 - Dec 2023
Collaborated in a **team of 3** to conduct workshops on menstrual health in local schools, reaching over **200** students from **classes 9-12.**

Skills

Programming Languages: Python, C/C++, SQL, JS, MATLAB, C#, Shell
Development Frameworks: PyTorch, Unity, React Native, Django, FastAPI, Pandas, Git, AWS, REST APIs, MLOps
Other: Computer Vision, Arduino, MS Office, Linux

Achievements

- **Grand Finalist**, e-Yantra Robotics Challenge (IIT Bombay) - Ranked in the **top 5** out of **400+** teams.
- **Dean's List**, Plaksha University - Ranked in the **top 5** out of **96** students based on CGPA.
- **1st Prize**, Innov8 Hackathon, JECRC University - Won the **1st prize** for Insuliv, out of **200+** teams.
- **1st Position**, HackPlaksha, Plaksha University - Won the **1st prize** out of **50+** teams. Made a Pomodoro focus application.
- **Grand Finalist**, Shaashtra, IIT Madras - Reached the finale (**top 7** out of **200+** teams) in the case study competition.