

Sanjana Jain

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SUMMARY

My goal is to **model voluntary human movement** and design interactive systems with **computer vision and machine learning**. I spent 3+ years as a software analyst maintaining large-scale enterprise systems at Deloitte. I am a **National hackathon winner**, specializing in **game development, augmented reality** and **virtual reality**.

HACKATHONS & AWARDS

• 1st Prize National Winner, Smart India Hackathon

- *Future Generali Mixed Reality Application [Certificate]* Mar 2019
 - Built a **Mixed Reality insurance support** tool to streamline customer onboarding and explain claim processes.
 - Selected as the national winner for innovation, technical execution, and real-world applicability.

• Finalist, Build for Digital India Hackathon, Google

- *RetailAR: Retail Augment Reality* Feb 2020
 - Developed a single-point end-to-end AR-based interface to **improve shopping experience** for retail customers.
 - Integrated navigation of stores via **geofencing**, product information via QR, and **recommendations** via **ML**.

• Scholarship, Spark AR Open Program, Facebook

- *School of Innovation India from Facebook [Certificate]* Mar - Jun 2020
 - Among **top 250** teams out of 10,000 students to receive scholarship and certification to Spark AR flagship program.
 - Fully-funded intensive training on Spark AR, **3D modeling, Visual Scripting** and Reactive Programming.

• South Asia Winner, OpenCV AI Competition

- *Gait Analysis for Parkinson's Disease [University Recognition]* Mar - Aug 2021
 - **Phase 1 winners** of the South Asia Region and qualified among the **top 150** research projects worldwide.
 - Support early screening of Parkinson's through **joint motion patterns in walking videos** with computer vision.

WORK EXPERIENCE

• Deloitte USI

- *Identity and Access Management, Cybersecurity* Gurgaon, India Feb 2021 - Apr 2024
 - Managed end-to-end access provisioning for enterprise applications across both Windows and Linux environments.
 - Resolved server authentication failures caused by Centrify package issues, cache problems, and configuration errors.
 - Fixed authorization issues in Linux servers by correcting AD group memberships and privilege misconfigurations.
 - Recognized with multiple Spot Awards and an Applause Award for reliable execution in critical access operations.

• Internship: Elixir Systems

- *AR Developer Intern: [Work Sample]* Delhi, India Apr 2020 - Jun 2020
 - Designed and developed augmented reality simulations aligned with grade IX and X curriculum.
 - Mapped textbook images to interactive 3D models in an Android application using image-based marker recognition.

EDUCATION

• Jaypee Institute of Information Technology

- *B.Tech in Computer Science* Noida, India Aug 2017 – May 2021
 - GPA: 7.2/10 (cumulative), 8.45/10 (senior year).
 - **Relevant Coursework:** Machine Learning & Natural Language Processing, Matrix Computations, Operations Research, Computer Graphics, Image Processing and Analysis, Algorithms & Problem Solving, Data Structures, Operating Systems and Systems Programming, Database Systems & Web, Computer Networks.
 - **Scholarship:** Awarded a scholarship and recognition certificate by the university for securing a national win.

RESEARCH PROJECTS

- **Gait Analysis for Parkinson's Disease** 2021
Prof. Suma Dawn Senior Year Project
 - Computer Vision Solution for an inexpensive, accessible and effective diagnosis of Parkinson's Disease.
 - Used Background Extraction, Noise Filtering, Morphological Transformation to achieve skeletonization.
 - Motion-cue extraction using cosine similarity was done in order to analyze gait.
- **EduAR – Interactive AR Learning Platform** 2020
Prof. Suma Dawn Junior Year Project
 - Built an interactive AR learning application that visualizes science concepts using 3D simulations and animations.
 - Integrated a chatbot and Slack interface to facilitate quizzes and real-time Q&A environment in remote settings.

SELECTED PROJECTS

- **Lightweight Motion Question and Answer** 2025
[Github] Independent Project
 - Built a lightweight system for querying info about human motion in short video clips.
 - Designed end-to-end browser workflow for uploading videos and generating motion-aware responses.
- **AR/VR COVID-19 Awareness Simulation** 2020
[Demo Video] Junior Year Project & Dishathon
 - Created VR environments modeling COVID-19 transmission patterns in common public spaces.
 - Built interactive AR simulations to demonstrate how distancing and mask usage influence exposure risk.
 - Implemented physics-based behaviors and optimized scenes for real-time mobile-friendly performance.
- **VirFrame: Interactive COVID Awareness Game** 2020
[Demo Video] GMTK Game Jam
 - Designed a 2D platformer where each player is randomly assigned to play as a “good” or “bad” virus character.
 - Developed gameplay rules focused on unpredictability and engagement to gamify Covid-19 awareness.
 - Implemented core gameplay logic, UI, and game assets for a time-bounded international game jam.
- **FurnitureAR: In-Home AR Furniture Visualization** 2020
[Demo Video] WieHack
 - Created an AR application enabling users to virtually place and visualize furniture in their homes before purchase.
 - Handled object placement, scaling, and simple lighting to maintain realistic appearance in varied environments.

TECHNICAL SKILLS

- **Programming:** Python, C++, JavaScript, C#
- **Tools/Engines:** Unity3D, Android Studio, Blender, Adobe Photoshop, IBM Watson
- **Frameworks/Platforms:** ARCore, Vuforia, TensorFlow, OpenCV, Git, Linux
- **Interests:** Game Development, AR/VR, Computer Vision, Machine Learning

LEADERSHIP & EXTRACURRICULARS

- **Game Dev and Graphics Society** Jaypee Institute of Information Technology
2019 – 2020
Coordinator
 - Organized Unity game jams and delivered hands-on workshops on 2D and 3D game development.
 - Led Photoshop workshops and mentored juniors in foundational game art and asset creation.
- **Dance Certifications and Workshops**
Kathak, Contemporary, Hip-Hop
 - Formally trained across multiple dance styles, including completion of an 8-year diploma in Kathak.
 - Led online and offline workshops and performed at cultural events and competitions.