

# Shival Gupta

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## PROFESSIONAL SUMMARY

CS Graduate specializing in Web, XR, and AI, with hands-on experience building defense simulations, autonomous robots, and agent-driven smart home systems.

## TECHNICAL SKILLS

**Languages:** Java, Python, C, C++, C#, SQL  
**Web:** Next.js, Tailwind CSS, Clerk.js, Prisma ORM, PostgreSQL, WebSockets  
**AI & Robotics:** ROS, Jetson Nano, Arduino, RAG pipelines, multi-agent systems  
**Tools:** Git, Docker, Unity, Blender, OpenXR (VR)

## PROJECTS

<b>Autonomous Omni-Wheel Library Robot (Capstone)</b> <i>Jetson Nano, ROS, Arduino, Python, C++, Docker</i> Integrated Jetson Nano with Arduino for real-time motor control and AI-based navigation. Implemented ROS-based LiDAR mapping and IR-guided line following for indoor autonomy.	Jan 2025 – Apr 2025 [Video]
<b>Smart Home Automation (Samsung PRISM Worklet)</b> <i>Unity, crewAI, WebSockets, Next.js</i> Built a 3D smart home simulation in Unity as a testbed for autonomous AI agents. Connected AI backend with real-time device orchestration using WebSocket and HTTP. Developed a control dashboard for monitoring and agent-based interactions.	Sep 2024 – Jun 2025 [Live Demo]
<b>Samsung Store XR (PRISM Challenge Winner)</b> <i>Unity, OpenXR, Blender</i> Developed a VR prototype of Samsung's retail store for Meta Quest and other XR devices. Implemented teleportation, interactive product showcases, and virtual cart systems.	Feb 2024 – Jul 2024 [Demo Video]

## EXPERIENCE

<b>Systems Engineer (ILP Trainee)</b> <i>Tata Consultancy Services (TCS)</i>	Jan 2026 – Present
<b>XR Developer Intern</b> <i>SatoriXR, Chennai, India</i> Led a cross-functional team of developers and 3D artist on a defense-focused VR simulation. Processed DEMs and satellite imagery into interactive Unity-based terrain systems. Implemented missile trajectory modeling and Google Earth-style visualization tools. Assisted in hosting OpenProject (open-source Jira alternative) on Azure using Docker.	Feb 2025 – Jun 2025 Certificate
<b>Software Developer Intern</b> <i>Airtel Payments Bank, New Delhi</i> Worked in Agile/Scrum workflows for fintech application development. Built a secure full-stack B2B SaaS prototype for enterprise transactions. Implemented Next.js, Prisma, and PostgreSQL with encryption and RBAC. Integrated third-party authentication and modern UI using Tailwind and shadcn.	Sep 2023 – Nov 2023 Certificate

## EDUCATION

<b>B.Tech in Computer Science and Engineering (AI &amp; Robotics)</b> <i>Vellore Institute of Technology, Chennai</i>	2021 – 2025 CGPA: 7.84
<b>Senior Secondary (CBSE XII)</b> <i>St. Karen's High School, Patna</i>	2020 62.17%
<b>Secondary (CBSE X)</b> <i>St. Karen's High School, Patna</i>	2018 75.67%

## EXTRACURRICULAR ACTIVITIES

Piano, Skating, Badminton, Photography, Videography