

HARSHAL JAGTAP

Unity Developer | Game & 3D Applications Developer

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PROFESSIONAL SUMMARY

Versatile Unity Developer with hands-on experience in 3D mobile game development, custom gameplay systems, custom level editors, and real-time 3D interactive applications. Proficient in C#, Universal Render Pipeline (URP), OOP design patterns, and mobile graphics optimization. Proven track record in shipping live titles on the Google Play Store, building custom AI flight behaviors, and optimizing complex 3D machine pipelines from Blender to Unity.

TECHNICAL SKILLS

- **Game Engines & Architecture:** Unity 3D (2D/3D), C#, Universal Render Pipeline (URP), Unity New Input System, ScriptableObjects, Physics 3D/2D, Animation Systems, Shaders (HLSL / Shader Graph)
- **Mechanics & Tooling:** Object Pooling, Pathfinding Logic, State Machines, Custom Level Editors, AI Navigation, DOTween, Dreamteck Splines, Modern UI Pack
- **Monetization & Analytics:** Unity LevelPlay (Ads Integration / Mediation), Custom Performance Analytics & Telemetry Tracking
- **3D Art Pipeline:** Blender (Low-Poly Modeling, UV Unwrapping, Mesh Optimization, Texturing, Draw Call Reduction)
- **Languages & Backend:** C#, C++, Python, C, SQL, JavaScript, REST APIs, Git, Docker, n8n Automation, PostgreSQL, SQLite, MongoDB

WORK EXPERIENCE

LemonLogic Interactive • Unity Developer (Jan 2025 – Mar 2026)

Sky Vanguard 3D (3D Aerial Combat – Unity URP)

- **Core Gameplay Architecture:** Engineered a responsive flight control system and a modular, extensible weapon framework handling Homing Missiles, Free-fall Bombs, and Defensive Flares.
- **Advanced Enemy AI:** Programmed tactical dogfight combat AI behaviors using Unity AI Navigation and Dreamteck Splines for aerial dogfights and ground target routines.
- **Graphics & Mobile Optimization:** Optimized mobile frame rates by implementing memory-efficient Object Pooling systems and custom lightweight URP post-processing shaders (volumetric fog and motion blur).

Sorting3DGame (3D Casual Puzzle – Unity)

- **Mechanics & Touch Feedback:** Authored core 'Bead Sort' touch interaction mechanics using DOTween to deliver high-performance gameplay feedback and tactile animations.
- **Progression & Economy:** Architected a scalable chapter progression system featuring procedural challenge generation and a dynamic shop/currency economy.
- **Monetization & Telemetry:** Integrated Unity LevelPlay for ad monetization and engineered a custom PerformanceManager to log player accuracy and level completion efficiency.
- **UX Mechanics:** Developed an intelligent hint generation algorithm and a pathfinding-based 'Undo' stack mechanism to improve player retention and reduce puzzle friction.

DEV Information Technology • Machine Learning Intern (Jan 2024 – Jun 2024)

- **Conversational AI Deployment:** Improved NLP data extraction accuracy by 30% by developing and deploying RASA-based conversational AI integrations for mobile applications.
- **Cloud Architecture & Microservices:** Migrated FastAPI backend services to Azure Functions, optimizing serverless scalability and resource availability.
- **Predictive Analytics:** Built predictive neural network models using TensorFlow/Keras to process operational datasets, visualizing system telemetry via Power BI dashboards.

KEY GAME & 3D PROJECTS

3D Industrial Machine Configurator & Simulation • [Freelance Unity Developer](#) (Apr 2026 – Present)

- **3D Interactive Simulation:** Built an interactive 3D simulation application in Unity3D/C# to showcase complex packaging and filling machinery (Rotary & Linear Tube Fillers, Jar Fillers).
- **3D Asset Pipeline:** Modeled, textured, UV mapped, and optimized complex industrial CAD machinery assets into real-time low-poly 3D models using Blender.
- **Mobile Touch & Architecture:** Implemented custom mobile touch camera systems (pinch-to-zoom, swipe-to-rotate) using Unity's New Input System and decoupled UI parameters via ScriptableObjects.

Donut Sort — 3D Casual Game • [Creator & Publisher \(Live on Play Store\)](#) (Personal Project)

- **Full Lifecycle Game Development:** Designed, programmed, and published a complete hyper-casual puzzle game to the Google Play Store.
- **Systems Engineering:** Engineered core gameplay architecture, including virtual economy systems, ad network mediation, inventory management, audio managers, and life systems.
- **Custom Tooling & Optimization:** Developed a custom semi-automatic level editor tool in Unity to accelerate level creation, and created performance-optimized low-poly 3D assets in Blender for budget mobile devices.

Automated Backend & Workflow Infrastructure • [DevOps & Scripting](#) (Personal Project)

- **Infrastructure & Pipeline:** Containerized and deployed self-hosted n8n automation pipelines on VPS using Docker and Cloudflare Tunnels for encrypted endpoint security.
- **Data Processing:** Scripted Python workflows to parse JSON data, connect REST APIs, and execute LLM document data extraction with vector database context windows.

EDUCATION

Indus Institute of Technology and Engineering — [B.Tech in Computer Science & Engineering](#) (2021 – 2024)

Academic Standing: CGPA: 8.70 / 10.00 (FGPA: 8.85 / 10.00) | Gujarat, India

L.J. Polytechnic — [Diploma in Computer Engineering](#) (2018 – 2021)

Academic Standing: CGPA: 8.61 / 10.00 | Ahmedabad, Gujarat, India