RISHIKESH JAISWAL

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EDUCATION

Purdue University **Aug 2022 - Jul 2025**
Master of Science in Computer Graphics Technology *West Lafayette, Indiana*

Institute of Chemical Technology **Jun 2015 - May 2019**
Bachelor of Chemical Engineering *Mumbai, India*

WORK EXPERIENCE

Games Innovation Laboratory, Purdue Polytechnic Institute **Jan 2023 - May 2025**
Instructor, Graduate Teaching & Research Assistant *West Lafayette, Indiana*

- Instructed students in Unreal Engine 5 on core game development topics, including modeling, texturing, lighting, programming, scripting, and source control; provided academic counseling, project support, and teamwork support during labs and office hours.
- Led the development and presentation of instructional lab materials and collaborated on a web-based game project using C# and the Unity Game Engine to enhance practical learning outcomes.

Iconic Engines **Aug 2023 - Dec 2023**
Lead Prototype Developer *West Lafayette, Indiana*

- Led comprehensive VR gamification design and development, implementing 6+ immersive gameplay interactions (item-based voting, collaborative painting, treasure hunts, real-time feedback systems) using Unity.
- Based on extensive UI/UX research and usability testing, the team achieved a 33% increase in task completion, 2.5× boost in session duration, 50% reduction in user confusion, and 40% improvement in engagement scores.
- Managed a cross-functional team of 5 specialists to deliver VR Museum Experience on schedule, overseeing complete project lifecycle including sprint planning, communicating task delegation, timeline management, and user support for successful product launch.

PI Industries Limited **Jun 2019 - Sep 2020**
Technical Services Engineer *Vadodara, India*

- Led a technical service team of a newly commissioned Chemical Plant with 20 people to enhance equipment efficiency, troubleshoot problems, and eliminate production bottlenecks to ensure safety standards, employing HAZOP analysis.
- Created interlocks for Yokogawa's Distributed Control System of Plant and tested it extensively to watch for safety issues.

PROJECTS

Master of Science Thesis: In Depth Review of Behavior in 3D Software

- Researched cross-domain behavior specification, analyzing methods across software, AI, simulation, and engineering; evaluated state machines, temporal logic, UML, and ontologies to propose a unified modeling framework.
- Investigated integration of behavior into 3D scene representation through tools like behavior trees, animation curves; assessed Pixar's USD for modularity and interoperability while identifying its limitations in native behavioral support.
- Built USD prototype with sinusoidal cube motion and orbiting light using .usda syntax and explored custom schemas, showcasing pathways for extending USD toward behavioral specification.

Swords *(Unreal C++ Software Engineer)*

- Self-produced a third-person RPG set in an Ancient World and utilized C++ and Unreal Blueprints to program gameplay abilities, enemy AI, loot system, chaos fracture system, movement & action animations.

NanaTheBanana *(Gameplay Programming and Level Designing)*

- Created a third-person shooter game in a team of 3 that features Nana on her journey from a grocery store to a farm.
- Designed dynamic elements in levels, teleport system, and Nana's control, applying UE5 Blueprints.

Pistol Whip *(Unity Developer)*

- Remade popular VR game Pistol Whip using C# and Unity Engine.
- Added sound effects and background music to gameplay with a retro-wave aesthetic.

SKILLS, TECHNOLOGIES, & LEADERSHIP

- **Skills**: C++; Data Structures; Algorithms; Object-Oriented Design; 3D Mathematics; Algebra; Scripting; Python; Effective Communication; Team Oriented; Analytical Problem Solving
- **Technologies**: Unreal Engine 5; Unity; OpenUSD; Da Vinci Resolve; Jira; Maya; Blender; OpenGL; Git; Z-Brush
- **Leadership:** Expanded festival participation by reaching 60+ colleges and organizing events for 2,000+ participants as PR Head.