

Kalpan Agrawal

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Summary: Aspiring to become a Virtual Reality Game Developer, I am pursuing my Master's in Game Science and Design at Northeastern University. I have a strong programming background in python although my interests and motivations lie in the Game Development and Design field, particularly Virtual Reality Gaming.

Education

M.S. in Game Science and Design (GPA: 3.8)	Northeastern University	2021 - Current
B.E. in Computer Engineering	University of Pune	2015 - 2019

Skills

DCC Tools:	Unity 3D, Unreal Engine, Davinci, Photoshop, Illustrator.
Core Skills:	VR, AR, Scripting, Modeling, Rendering, Lighting, Animation, Texturing, Shader Graphics.
Platforms:	Windows, Android, Meta Quest 2, HTC Vive, Varjo, HoloLens 2.
Languages:	C#, C++, Python, Java, JavaScript, HTML.

Work Experience

RA for Game and VR Development – Experience Design Labs, NEU Jan 2023 – Current

- Designing and developing a Unity VR game with hand tracking for real-time interaction with a virtual robotic workbench. I collaborate with a research team to create a gamified experience for interacting with a Mujoco-based robotic environment, providing an immersive industrial work simulation through VR and robotics.

VR Developer Intern – Immersive Media Lab, NEU Sept 2021 – Dec 22

- Developed on various AR and VR devices, using the latest Immersive technologies like Quests pro, Varjo VR-3, Pico Neo 4, etc.
- Implemented system optimizations to ensure the game runs at sufficient fps without sacrificing artistic vision on low-end devices.
- Collaborated with designers and engineers to solve lighting, rendering, programming, and graphics-related challenges. Worked with the design team to conduct user research to improve game environment experiences.

AI Engineer at AI Mulla Group Sept 20 - Aug 21

- Led team of 5 junior AI engineers undertaking the software development life cycle for client projects.
- Worked extensively on Python ML projects. The two among the many projects were a Face Recognition service for user login and Smart Chat-bot service for customer support.
- Used ReactJS for web-designing for the Company's website.
- Used C++ and Java to make pipelines to improve system performance, data flow.

Software Developer at AI Mulla Group Sept 19 - Aug 20

- Engineered modern Web-APIs with Java, JavaScript, and SQL Server databases.
- Developed innovative microservices and web services using Python and Java APIs.
- Deployed and integrated software from team, updating integration and deployment scripts for optimal continuous integration.
- Worked closely with product managers to define project requirements and create well-scoped roadmap for long term progress.

Software Intern – Technowings June 2018 - July 2018

- Develop and maintain Python-based software applications under the guidance of senior developers.
- Collaborate with cross-functional teams to identify and resolve software bugs and other technical issues.

Game Projects

- VR-Two-gether - Graduate Capstone:** A cross-platform two-player cooperative game in which one player uses a VR headset and controls and the other player plays on a PC.
- VR The Jury:** Developed a multi-platform "party game" re-creating the Eyewitness (VR Player) and Jury (Non-VR couch players) experience using 3D immersive and video to document a possible crime. The in-headset user is immersed in a 3D virtual SCENARIO and tasked with documenting a possible crime using a virtual camera-phone. Non-immersed players then act as jury and make individual verdicts about the case.
- Spiral Madness:** A 3D walking sim made using Unreal Engine; showcasing a paranormal Greed temple where players are stuck.