Kalpan Agrawal | Game Developer

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Portfolio: https://kalpan-ag.github.io/

Skills

Programming Languages: C++, C#, Unreal Visual Blueprint, ReactJS (JavaScript), OpenGL, Python
Software: Unity, Unreal Engine, Davinci Resolve, ReactJS
Platforms: Windows, Android, Meta Quest, HTC Vive, Pico, Varjo, HoloLens 2

Experience (Cumulative: ≈ 4 Years)

Experience Design Labs, NEU | *Jan 2023 – May 2023 (5 Months)*
Research Assistant for Game and VR Development | *Boston, MA, USA*

- Designed and developed a Unity VR Simulation with hand tracking for real-time interaction with a Virtual Robotic Workbench using C#, and C++. Used C++ to set up Game Logic, Mechanics, Multiplayer and Gameplay Systems.
- Collaborated with a research team of 30, achieving a gamified experience that boosted user interactions by 40% with a MuJoCo-based robotic environment on Unity VR platform.
- Delivered an Immersive Industrial Work Simulation, leveraging advanced algorithms such as A*, predictive modeling, Occlusion Culling, and LOD optimization to increase the efficiency within the simulated environment.

Immersive Media Lab, NEU | *Sept 2021 – Dec 2022 (1 Year, 4 Months)*
VR Developer | *Boston, MA, USA*

- Developed Mini-projects using Unity 2021 LTS, C#, and C++ on various AR and VR devices like Quests Pro, Varjo VR-3, Pico Neo 4. Ensured 60+ FPS performance on low-end devices, improving usability.
- Proficiently utilized various VR SDKs including Oculus, Varjo, and Pico Neo SDKs to ensure seamless compatibility with different VR headsets, enhancing user experience and accessibility.
- Conducted in-depth research on VR/AR platforms and technologies, staying up to date with emerging trends and best practices.

Al Mulla Exchange Group | *(2 Years)*
https://www.almullaexchange.com/kwt/en_US/
AI Engineer | *Sept 2020 – Aug 2021* | *Mumbai, Maharashtra, India*

- Worked with a team of AI engineers, overseeing the software development life cycle of 3 Long-term Python ML-AI and C++ projects, namely Face Recognition, Smart-Chatbot and a Python based Data Management System.
- Used ReactJS for web-development focusing on improving GUI, User Experience and Customer Support Experience.
- Introduced Python-based ML projects such as a Face Recognition service that improved user login accuracy and a Smart Chat-bot service that enhanced customer support response time. Implemented machine learning models like Random Forest and Neural Networks, elevating the success rate of automated decisions.

Software Developer at Al Mulla Group | *Sept 2019 – August 2020*

- Engineered Production Level Web-APIs using Python, C++, and SQL Server databases.
- Deployed and integrated software from the team, updating scripts that reduced build failures and Facilitated uptime for optimized continuous integration.
- Collaborated with lead developers and product managers to devise a roadmap, within a team of 40 and helping in bug-fixing, feature completion and team's alignment with long-term goals.

Technowings | *June 2018 – July 2018 (2 Months)*
Software Intern | *Pune, Maharashtra, India*

- Assisted in the development and maintenance of C++ applications, achieving bug-free code under the mentorship of senior developers.
- Collaborated with cross-functional teams to identify and resolve software bugs and other technical issues.

Education

M.S. in Game Science and Design (GPA: 3.71)	Northeastern University	*2021 – 2023*
B.E. in Computer Engineering	University of Pune	*2015 - 2019*