Pulkit Garg

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SUMMARY OF QUALIFICATIONS

- Pursuing a B.CS in **Computer Science** with a specialization in **Computational Fine Arts**, and minor in **Cognitive Science.**
- Extensive experience in **software development** focused on building **scalable**, **real-time applications** and **immersive user experiences.**
- Proficient in **OOP** languages such as **C++, C#, Java, Kotlin** with significant experience using **Unity** and **Unreal Engine**.
- History of collaborating with **large, dynamic,** and **diverse teams,** focusing on developing innovative software solutions.

Technical Skills: C++, Java, C#, Python, Kotlin, R, Firebase, AWS, Git, CI/CD, Unit and Integration Testing

EDUCATION

University of Waterloo B.CS Computer Science, Minor in Cognitive Science, Fine Arts Specialization *Sep 2022 – Present*
President's Scholarship of Distinction. **Cumulative GPA 3.7/4.0**

EXPERIENCE

3D Software Development R&D Intern
SideFX *May 2025 – Sep 2025*
- Improved data import systems by enabling high-precision numerical parsing and processing scientific and simulation workflows.
- Updated mesh decimation algorithms to achieve >10x polygon reduction while preserving topological detail and texture maps.
- Designed and implemented a new interactive modeling tool from scratch based on the Push Pull algorithm, reducing user input by up to 12x and improving editing speed by ~30%.

Virtual Reality Developer
Liftwerx *Sep 2024 – Dec 2024*
- Developed **VR training modules** for wind turbine technicians using **Unity, Unreal Engine,** and **Blender**.
- Led end-to-end development, including **scripting, debugging,** and **deployment** on **AWS S3** and Meta Quest headsets, using a **custom built Android launcher.**
- Created a custom **Android plugin** enabling centralized data synchronization and real-time reporting on technician performance.

Software Developer Intern – OS and Graphics Developer
Ford Motor Company of Canada *Jan 2024 – Apr 2024*
- Contributed to **Android Automotive OS** by integrating critical vehicle systems like lighting and climate using **C++** and **Kotlin**.
- Significantly **reduced memory leaks** by refactoring static companion objects, improving **OS stability**.
- Optimized services for **faster performance** and **reduced load times** by up to **70%** by implementing **multithreaded services**.

May 2023 – Sep 2023
- Built **real-time 3D visualization** tools for next-gen Ford vehicles using **Google Filament**. Implemented **asynchronous** asset loading, significantly improving load times, graphical fidelity and user experience.

Founder and Lead Game Developer
Sojourn Interactive *Feb 2019 – May 2023*
- Led a team in designing socially impactful video games, blending **educational content** with **immersive gameplay**.

PROJECTS

Voksel **link**
An **open-source 3D modeling software** for voxel-based game asset creation, built with **Unity, C#,** and **HLSL.**

SpaceLine **link**
Physics-based space sandbox with real-time gravity and climate **simulations**; includes **VR** mode developed using **SteamVR** framework.

Prepto **link**
A cross-platform **React Native** app, enabling real-time competitive test prep using **Firebase Cloud SDK** to handle **authentication**, **matchmaking**, and **real-time databases**.

Certify **link**
A **Web3** platform for creating, storing, and verifying certificates as NFTs on the **Solana** blockchain.

Digital 3D Cinematic Art Portfolio: https://www.artstation.com/pulkitgarg

AWARDS

Hawk Hacks 2023	Laurier University
Hack Western 2022 - Best Gaming Hack	Western University
Design Championship 2017,18,19,20 - India's largest game jam	NASSCOM, Indian Game Developers Conference
NASA SpaceApps 2019 - National winner and global finalist among 30,000 participants	NASA Earth Science Division
Toyota Motors Hackathon 2019	Toyota Kirloskar Motors, IIT Delhi
Angel Hack 2019, AWS Award Winner	Angel Hacks, Amazon Web Services