Faizan Qaiser

Gameplay Programmer

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About Me

I have a strong background in mathematics and became very interested in game programming as one of its applications. I love to work with a team of artists and level designers to bring their ideas to life.

Skills

- Highly skilled in Unity and C# with over 6 years of experience
- Strong background in 3d Math, Linear Algebra and Algorithms
- Understanding of the Unity Profiler and Frame Debugger
- Expertise on HLSL, Unity Shader Graph and Unity's Render Pipeline
- Physics simulations and Unity physics
- Procedural generation of meshes, terrain, texture data
- Photon Fusion, Google Admob, Unity Analytics, Google/Facebook sign in

Relevant Experience

Independent Projects (2019 - Present) Link To Portfolio

- Published Unity Game: Faller is my indie game which features a neat player controller with satisfying visual effects and my own game audio/music. Play Faller (2022)
- Unity Plant Growth Shader: Made a visual effect to simulate plants growing. See Demo
- Procedural Cavern: In this project I generated a cavern using Cellular Automata, Marching Squares algorithm and Object Pooling. Github (2021)
- Fluid Simulation: Made a fluid simulation in Javascript by solving the Navier Stokes equations. <u>Demo</u> (2019)
- Procedural Terrain: In this project I am generating terrain using layers of perlin noise, mesh manipulation and threading. (2019)
- **Unity Softbody: I**mplemented soft body mechanics and sprite deformation in Unity using spring joints, internal pressure and a reference frame. (2023)

Unity Developer at Dastaan Studios, Pakistan Lahore (2022-2023)

- Unity Engine, C#, Java: Developed a live wallpaper application on Android with visual effects support which responded to touch (Google & Facebook sign in)
- **Unity Physics**, **C#**: Worked on developing a multiplayer virtual reality game with deterministic physics synchronized for all clients (Photon Fusion, Hurricane VR)
- Unity, C#, Procedural Generation: Developed a 3D endless runner which was procedurally generated
- **Unity, C#, Simulation:** Designed an educational app which simulated plant growth with realistic water/nutrients/sunlight intake

Fiverr (Profile)

- Made an airplane controller. derekclearwater rated 5 stars. <u>Github</u> (2024)
- Made an army system for a strategy game. stylo019 rated 5 stars. (2022)
- Made an electricity shader for a character. (2022)

Other Experience

Mindstorm Winter Game Jam, Pakistan Lahore (2022)

• My submission in the game jam secured a place in the top ten. <u>See Submission</u> (2022)

Soft Skills

- FAST NUCES Lahore Music Society President (2022)
- FAST NUCES Lahore Table Tennis Team Captain (2022)
- BeaconHouse College Campus Gulberg Music Society Vice President (2016)
- BeaconHouse College Campus Gulberg Table Tennis Team Captain (2017)

Education

BeaconHouse College Campus Gulberg A Levels (2016-1018)

- Physics
- Chemistry
- Mathematics
- Further Mathematics

FAST NUCES Bachelors in Computer Science Lahore Pakistan (2018-2022)

(Remote) (Open to relocate)