

Omar Mohamed Ali Mudhir

Graphics programmer & game developer

omigame.dev

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[LinkedIn](#)

Graphics and XR developer with more than 13 years of experience. I build rendering systems, immersive experiences and tools for artists, working across native engines, desktop, mobile and the web. My interests connect videogames, art, music and the technology behind them.

SELECTED EXPERIENCE

OmixLab

Since 2017

Director / C++ 3D Graphics Developer

Developing PanoPainter, software for creating immersive 360-degree panoramic art on desktop, mobile and in VR.

LIV

2023 - 2026

Low Level Graphics Engineer

Native mixed-reality and spatial-computing technologies using C++, HLSL and Vulkan, optimized for mobile XR. Research into volumetric video and streaming.

The Fabricant

2021 - 2023

Unreal Engine Rendering Developer

Rendering workflows for digital fashion, with Unreal Engine plugins and integrations for Houdini, Blender and cloud processing.

Happy Finish / Figment Productions

2021

Unreal Engine C++ / AR Developer

Mixed-reality SDK work with Happy Finish and Microsoft; mobile AR development with Figment for the EE BAFTA Film Awards performance.

Industrial Light & Magic

2017 - 2018

R&D Engineer / Real-time Rendering & VR

Rendering and asset optimization for immersive experiences, using PBR workflows, texture generation, baking and ray-tracing techniques.

Framestore

2016 - 2017

VR Engine Developer

Engine extensions, shader optimization and asset-processing tools for VR experiences across desktop and mobile headsets.

Worlds, tools & rendering

PERSONAL PROJECTS

Drune

Experimental multiplayer driving playground, built around exploration and vehicle movement.

drune.omigame.dev

Glasswake

Multiplayer arena-shooter prototype with a coastal setting and fast rounds.

glasswake.omigame.dev

PanoPainter

Panoramic painting and animation software for desktop and mobile, with VR support and an experimental browser beta.

panopainter.com

TECHNICAL SKILLS

Languages

C++23, C#, JavaScript, Python, Intel assembly

Rendering

DirectX 11/12, Vulkan, OpenGL, WebGL, WebGPU, HLSL

Engines & XR

Unreal Engine 4/5, Unity 5/6, custom engines, OpenXR, OpenVR, Oculus VR

Image & video

OpenCV, MediaPipe, FFmpeg, WebRTC, Windows Media Foundation, Android Media

EARLIER WORK & TEACHING

Mindesk VR - C++ 3D Graphics Developer for VR, 2018 - 2019. Native VR interaction for architectural workflows and Rhino.

Microsoft Lift - 3D Engine Developer, 2017. Work on Paint 3D and its real-time engine.

inVRsion - VR Developer, 2013 - 2015; XR Developer, 2020.

Italian Videogames Academy - Graphics programming teaching, 2020. Direct3D, Vulkan, ray tracing and Unreal Engine programming.

Additional 2020 work includes Be2Bit (computer vision) and NoGhost (Unreal Engine VR).

EDUCATION & LANGUAGES

Universita degli Studi di Milano

Master's studies, Computer Science, 2011 - 2013

Bachelor's degree, Information Technology, 2005 - 2010

Uppsala Universitet - Computer Science, Erasmus program, January - July 2013

Languages - Italian and English