Angelos-Ioannis Katsampekis

Unity developer and research engineer

Personal Info

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Nationality

Greek

Date of birth

19/11/1994

Links

LinkedIn

Skills

- Unity 3D / C# (HDRP, URP, XR Interaction)
- VR/AR development (Meta Quest, Valve Index, OpenXR, Meta XR SDKs)
- Game Development
- Multiplayer networking (Netcode for GameObjects)
- Multithreaded physics & gameplay systems
- ML-Agents & Generative-AI pipelines
- ONNX, NNAPI, TensorFlowLite, Sentis
- Cesium 3D Tiles & Geospatial data
- C++, Python tooling, Git, CI/CD
- Mobile Optimization: GLES, Vulkan, Android NDK
- Data Visualization

I'm a **Unity Developer** and **XR Research Engineer** with 5+ years of experience creating games and immersive experiences. I've worked on projects for **Samsung, Coca-Cola, and EU Horizon programs**, ranging from VR avatar-tracking systems and AI-powered museums to a full drone-and-missile simulator with advanced physics and ML-based navigation. My background includes strong experience with **Unity, C#, C++,** and **Python**, as well as practical work in gameplay programming, physics simulation, multiplayer networking, machine learning, generative AI, and performance optimization.

Work Experience

Research Assistant, CERTH - Center for Research & Technology, Hellas, Thessaloniki

2022 - 2025

Samsung Electronics - Avatar Body Capture (Unity)

- **Prototyped** a mobile-ready **VR avatar-tracking** solution for Samsung, developed in close collaboration with their R&D teams to achieve real-time full-body motion prediction on mobile devices.
- **Integrated** multiple AI-inference back-ends in Unity alongside Unity's **Sentis**.
- **Built** an in-app **benchmarking** framework to compare model variants and inference engines under identical runtime conditions, streamlining internal evaluation.

Drone & Missile Simulator (Unity)

- **Designed** and built the entire **simulator** end-to-end, from core architecture to UX.
- **Developed** and optimized a custom real-time, multithreaded **aerodynamic solver** with per-vertex force computation for accurate flight simulation.
- **Trained** autonomous drones with **Unity ML-Agents** to navigate dense forest environments using a depth camera.
- **Logged** missile-launch telemetry generating labeled datasets for **AI targeting research.**

Coca-Cola - CCH: Software Development Service

- **Designed** and implemented machine learning **algorithms** for Coca-Cola, working alongside their data science team to support inventory optimization research.

Palimpsisto - 3D Geospatial Platform (Unity)

- **Developed** an interactive **geospatial platform** for the Archaeological site of Kythnos, funded by the Greek government.
- **Integrated Cesium** to stream photogrammetry scans as 3D tiles from a Geospatial Database.
- **Connected** an **AI-Assistan**t for in-platform interaction.
- **Linked** live museum findings **metadata** allowing curators to update exhibits.

ReEvaluate - AI-Driven VR Museum (EU Horizon, Unity)

- **Developed** an immersive museum where **generative AI** creates themed textures and auto-places artifacts based on semantic descriptions.

5G VR Automotive Tour (Unity Multiplayer)

- **Developed** a **VR Multiplayer** app in Unity that receives a 360-degree video stream over 5G, applies foveated rendering and face anonymization on the fly and reports networking metrics.

VirTourArt Platform (EU Horizon, Unity SDK)

- **Delivered** AR/VR rendering & multimodal interaction modules, localization & 3D reconstruction and packaged the subsystems into an **SDK**.

EMBNOESIS - Intelligent NB-IoT sensors for the construction industry

- **Developed** a Python **data-visualization tool** that converts live NB-IoT sensor streams into interactive dashboards for construction-site monitoring.

Software Developer, Pragma - IoT Solutions, Thessaloniki
2024 - 2025

Samsung Electronics - Game Optimization

- **Created** Python and C++ **tools** for Samsung to convert and package deep learning models for mobile AI runtimes, streamlining deployment on Android devices.
- **Benchmarked** mobile **games** with a custom graphics monitoring harness, capturing frame-time, thermal, and battery data to guide optimization in collaboration with Samsung's engineering team.

Education

Physics, Aristotle University of Thessaloniki (BSc)
2012 - 2020

Advanced Computer and Communication Systems, Aristotle University of Thessaloniki (MSc)
2021 - 2025

Data Science with Python, National and Kapodistrian University of Athens (Certificate)

2020 - 2021