

Miltiadis Kotsarinis

Lead Engineer, ML & AI Architect · games, real-time 3D and AI agents

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Lead Engineer at Netcompany, forward deployed at National Bank of Greece, leading three AI-agent projects; the customer-facing one is in production. From 2019 to 2026 at BAUD: games, AR/VR and installations for Apple, Meta, Microsoft, Samsung and Deloitte, primary developer on most.

Experience

Lead Engineer — ML & AI Architect, Netcompany

Forward Deployed Engineer at National Bank of Greece, Athens

Feb 2026 – Present

- Lead a team of three engineers and own three of the bank's AI-agent projects end to end, from business case and design to weekly releases with the bank's technical leadership, commissioning outside providers where needed.
- The team builds with coding agents behind verification gates I set.

Software Engineer → Senior Software Engineer, BAUD LTD

Remote (London-based XR and interactive studio)

June 2019 – Jan 2026

- 20+ projects for Apple, Meta, Microsoft, Samsung, Deloitte, Siemens and Axon, primary developer on most: released AR games, VR trainers, live installations, Unreal worlds streamed to the browser.
- Built the platforms the studio reused across clients: a multi-tenant showroom CMS (Django, AWS Lambda), a product configurator, build tooling.

Software Engineer & Consultant (sole proprietorship)

Athens, Greece

2019 – Present

- Client work (elenivrontzou.com), the open-source mk-cc-resources plugins, my own games in development.

Selected Projects

AI & Agentic Systems

National Bank of Greece – Agentic AI Program (Netcompany, 2026 – now, project lead)

Three LLM-agent systems that take over flows the bank already runs. The customer-facing one handles card reversals and balance refunds on closed cards and is in production with live customers; the internal two cover relationship-manager client management and new-client onboarding. LangGraph orchestration, RAG, MCP and tool calls into the bank's systems, verification gates before every release.

mk-cc-resources – Open-Source Claude Code Plugins

A pipeline for building software with coding agents (elicit → research → architect → build → review → verify) and 18 plugins around it: project memory, verification, agent workflows, session lifecycle. One rule runs through all of it: an agent can't report "done" until the check that proves it has run. [GitHub](#)

Confidential Client – Real-Time Health Avatar

A talking avatar that holds health conversations, run by a multi-agent system (LangGraph/LangChain, Python). Routing, background nodes and queue handlers keep the conversation live while retrieval (ChromaDB, knowledge graph) runs behind it; WebSockets for the live channel, Terraform across dev, test and prod on AWS.

Doodlar – AR Drawing Game

A child's drawing of an animal becomes a 3D animal that walks around in AR. Primary developer: the CNN that recognizes the drawing (TensorFlow, OpenCV), the Unity AR scenes and animal locomotion, the Django API. doodlar.co

Games & Real-Time 3D

Space Invaders: World Defense (Unit9 for Google × Taito, iOS and Android, 2023)

Location-based AR game: the invaders arrive over real streets and buildings. AR gameplay, VFX and shaders for the release.

Mystery Coast (Playdeo, iOS, 2020)

Interactive-video treasure-hunt game. Implemented the reworked UI across screen resolutions, added object pooling and improved performance.

Scalable Crowd – Diploma Thesis (University of Patras, Unity, 2026)

Implemented 13 crowd-simulation algorithm variants from 9 families in Unity and compared them head to head: 10 measured across 7 scenarios (circle, counterflow, door, maze, pillar field, funnel, open field) at up to 10,000 agents. [mkots.dev](#)

Meta – Avatars SDK Samples

Unity sample scenes for Meta's Avatars SDK: interactivity, accessories, Photon multiplayer.

Microsoft – Flip AR Lenses

30+ AR lenses for Microsoft's classroom video platform, including ASL fingerspelling recognition on Snap's hand tracking. Also: Apple (Reality Composer AR, 2021) · Dr. Jart+ WebAR (lead developer) · a product-info AR prototype (OCR, 3D data visualization).

Training & Simulation

Confidential Client – VR Rigging & Hoisting Trainer

Large Unity VR application that certifies rigging and hoisting knowledge. Core developer: rope physics (Obi Rope), hand interaction (Auto Hand), dynamic scenarios, scoring aligned with industry standards.

Confidential Client – VR Crane-Operator Trainer

Unity VR trainer for crane operators: cable and spring physics, the operator's controls and collider setup.

Axon – VR Training

Localization of Axon's VR training for law enforcement. axon.com/products/vr

Unreal & Streaming

AOI × CYPHER / Shoyu – Digital-Art Galleries

Large digital-art galleries in Unreal (C++), streamed to the browser with Pixel Streaming. 2D, 3D and video works load from a Django CMS, so a show changes without a rebuild. Primary developer. [case study](#)

Confidential Client – Unreal Digital Twin

Second version of an Unreal digital twin of a sports center, built from high-detail underwater scans and placed on the globe with Cesium geolocation; Perforce workflow.

Siemens Explore (Unit9)

Refurbished and expanded Siemens' online marketing platform in Unity: sessions with multiple hosts and users, live video feeds, high-fidelity graphics, built to hold up in public use.

WebRTC Streaming in Unity

Low-latency, high-quality WebRTC streaming of multiple video sources into Unity scenes, built with a partner studio.

Installations

Samsung × Vogue – New York Fashion Week 2024

Ran all week: gesture painting on a 3×3 m screen (Kinect, Unity), AI-edited photos on Galaxy Z Flip6/Fold6. [Samsung recap](#)

Deloitte – CyberSphere

Large touchscreen installation launched at RSA Conference: visitors browse video and information across five interactive cyber-attack scenarios (Unity). [case study](#)

NHK Enterprises – KIKI, Sign-Language Digital Human

A realistic digital human that signs Japanese Sign Language: words entered on an online platform come back as a recording of the signing, with facial expressions and animation files. Contributor: front-end and back-end, animation hookups, Unity capture and rendering.

Also: Charterhouse London (photogrammetry room in the browser, Three.js) · WebGL particle shaders that conform to 3D models.

Technical Skills

Languages: Python, TypeScript/JavaScript, C#, C++, SQL

AI/LLM: LangGraph/LangChain, RAG, MCP, multi-agent orchestration, tool use, agent evaluation and verification gates, OpenAI, Anthropic and Google model APIs, ChromaDB, TensorFlow, OpenCV

Backend/Systems: FastAPI, Django, Node.js, PostgreSQL, REST API design, WebSockets, WebRTC, Photon

Cloud/DevOps: AWS (EC2, Lambda, CloudFront, Route 53, SES), Terraform, Docker, GitHub Actions

Engines/XR: Unity (C#, XR Interaction Toolkit, Netcode, Burst/Jobs, HDRP), Unreal Engine 5 (C++, MetaHuman, Pixel Streaming, Cesium), 8th Wall, Lens Studio, Reality Composer, Three.js, WebGL

Other: Blender, Perforce, Git

Education

Diploma in Computer Engineering & Informatics (5-year integrated Master's), University of Patras 2026