

Andrea Zanolini

AI ENGINEER | GAME DEVELOPER | AUTOMATION SPECIALIST

Cosenza, Italy +39 339 421 0710 andrezano@icloud.com Portfolio Website

TECHNICAL STACK

Generative AI & ML

RAG Systems, AI Agents
Prompt Engineering & Context
MCP (Model Context Protocol)
Computer Vision (Classification)
LLMs (OpenAI, Anthropic)

Automation & Pipelines

n8n Workflow Automation
Vibe Coding (AI-Assisted Dev)
Cursor IDE, GitHub Copilot
API Integrations

Core Engineering

Python, C++
Unreal Engine 5 (Blueprints/C++)
Git, Perforce
Visual Studio

EDUCATION

B.Sc. Computer Engineering & Artificial Intelligence

Epicode Institute of Technology
Currently Enrolled (In Progress)

Game Programming

CG Spectrum (2023)

Adv. C++ (Stanford Curric.)

Tom Looman Course

LANGUAGES

Italian: Native
English: Advanced (C1)
Japanese: Basic (A1)

PORTFOLIO

Portfolio Website

deltawebsite.it

Game Logic & Agents Showreel

youtube.com/watch?v=cZ_cHHgbRVg

PROFESSIONAL PROFILE

Forward-thinking Developer bridging the gap between high-performance Game Engineering and modern Generative AI. Specialized in building autonomous agents, RAG systems, and computer vision tools, while retaining deep low-level knowledge in C++ and simulation logic. Passionate about "Vibe Coding"—leveraging AI tools (Cursor, n8n) to rapidly prototype and deploy complex solutions.

FEATURED AI PROJECT

NativWash (Surface Recognition App)

2025

Full Stack AI Developer | nativwash.it

- Developed an eco-friendly utility webapp for a detergent startup using **Computer Vision** technologies.
- Implemented an image classification pipeline to analyze user-uploaded photos of household surfaces and recommend specific detergent products.
- Designed a streamlined UX for non-technical users, connecting visual input directly to product logic.

EXPERIENCE

AI Solutions & Automation Developer

2024 – Present

Freelance / R&D

- Designing **n8n automation pipelines** to orchestrate complex workflows between LLMs, databases, and external APIs.
- Developing **RAG (Retrieval-Augmented Generation)** systems to allow AI agents to query proprietary data for accurate context retrieval.
- Utilizing **MCP tools** to standardize how AI models interface with local environments and datasets.
- Applying "Vibe Coding" methodologies to accelerate development cycles, using AI assistants to handle boilerplate code while focusing on high-level logic and architecture.

Game Programmer

June 2022 – Present

Gub Head Studios & Purple Hive Studios

- Engineered **Autonomous Agents** within Unreal Engine 5 using Behavior Trees, Blackboards, and EQS (Environmental Query Systems).
- Bridged low-level C++ performance with high-level logic, a skill directly transferable to optimizing AI model inference and agent latency.
- Developed procedural animation systems (Control Rig), applying logic similar to generative motion models.
- Collaborated in agile teams using **Git/Perforce**, ensuring code integrity in complex, multi-branch environments.