Agii Apostoli, 190 17, Oropos, Greece
(+30) 6983795047
fragkasnikolaos@gmail.com
LinkedIn Portfolio

NIKOLAOS FRAGKAS

Senior Unreal Engine Developer with 7+ years of experience in C++ gameplay programming and Unreal Engine 5. Founder of Argo Nautes Studio, with a track record of shipping core gameplay systems for AAA titles (Mafia series), including modular interaction frameworks, player targeting, and dynamic impact systems. Strong focus on writing clean, data-driven C++ code, debugging complex existing codebases, and building reliable tools that support design teams.

Skills

Game Engines: Unreal Engine 5 (Expert), Ability System Component (ASC), Enhanced Input, Lyra Framework, Proprietary Game Engines (EGO)
Languages: C++ (Expert), C#, Java, Lua, Assembly
Core Systems: Interaction Frameworks, Gameplay Targeting, Impact/Reaction Systems, 3C's, Combat & Damage Pipelines, Animation Integration, UI Systems
Tools & Practices: Perforce, Git, RenderDoc, OpenGL, Networked Multiplayer, Performance Optimization

Work Experience

CRATER STUDIOS, Remote, GR - GAMEPLAY PROGRAMMER

March 2026 – Present

Project: 99 Nights in the Apocalypse (Unreal Engine 5.7)

- **Custom AI Architecture:** Designed and implemented a custom C++ AI brain and state machine system, integrating Unreal Engine's native AIPerception and character movement components with dynamic profile setups to drive scalable, context-aware enemy behaviors.
- **Gameplay Ability System (ASC):** Authored modular gameplay abilities, attribute sets, and dynamic status effects using Unreal Engine's Gameplay Ability System (ASC) framework.
- **Health, Damage & Death Pipeline:** Engineered the full health, damage, and death pipeline, handling lifecycle events, attribute modifications, and combat mortality states.
- **Animation System Integration:** Integrated Anim Blueprints and montages using custom Anim Notifies and animation states to trigger state-driven gameplay logic and custom execution behaviors directly during character animations.

HANGAR13, BRIGHTON, UK - GAMEPLAY PROGRAMMER

August 2020 - October 2025

Project: Mafia: The Old Country (*Unreal Engine 5*+)

- **Interaction System:** Developed the core C++ interaction framework governing player world-interactivity (doors, vehicle entry/exit, item pickups, contextual takedowns). Refactored a legacy Blueprint implementation to ensure strict backward compatibility, supporting 12–15 designers over a 7-week production cycle.

- **Gameplay Player Targeting:** Engineered a shape-based, weighted selection component system in C++ that dynamically calculated viable interaction targets based on real-time camera trajectories and player movement vectors.
- **Impact Reaction Subsystem:** Video Built a rules-driven World Subsystem allowing designers and tech artists to generate context-specific reactions (VFX, SFX, decals, gameplay tags). Scaled the system over a 12-month period to support 20+ team members.
- **Hit Reactions & Intensity:** Developed the Hit Reaction system to evaluate incoming hit data and trigger context-accurate character animations (3–4 weeks); built a World Event Listener tracking game states (gunshots, player location) to drive dynamic audio layers (1.5 weeks).
- **Mission System Debugging:** Debugged, diagnosed, and resolved objective-logic and state progression issues within the game's core C++ mission codebase.
- **Combat & Damage Pipeline:** Authored the core damage pipeline and weapon execution states using modular C++ components, utilizing attribute structures (Health, Armor, Speed, Damage).

Project: Unannounced Title (*Unreal Engine 5*)

- **Gameplay Ability System (ASC):** Prototyped core gameplay mechanics for a short-duration project using Unreal's native ASC framework; authored modular player abilities, configured attribute sets, and modified character movement models.

CODEMASTERS, CHESHIRE, UK - *PROGRAMMER*

November 2018 - August 2020 (Systems & Optimization Dirt 5 — EGO Engine)

- **Cinematic Camera Systems:** Built a cutscene camera system with a modular C++ architecture, improving the studio's cinematic production pipeline.
- **Gameplay & UI Implementation:** Partnered with the design team under tight deadlines to implement core gameplay mechanics and UI layers across multiple game modes.
- **Designer Tools:** Developed custom in-engine C++ tools to assist designers with track layout and world-building workflows.

Education

NEWCASTLE UNIVERSITY, Newcastle, UK - *MSC COMPUTER GAME ENGINEERING*

October 2017 - August 2018 (Awarded with Merit)
Achieved MSc with Merit.

- Developed a networked C++ multiplayer game in a 10-person team.
- Built an Unreal Engine game project that achieved the top performance evaluation score in the cohort.
- Technical Focus: C++, OpenGL, Physics Engines, AI, .NET.

TECHNICAL AND PEDAGOGICAL UNIVERSITY OF ATHENS, ATHENS, GREECE - *MENG ELECTRICAL AND ELECTRONIC ENGINEERING AND EDUCATION*

September 2009 - March 2015 *(7.12/10.0 — 2:1 Equivalent, 300 ECTS)*

- Relevant Coursework: PC Networks, Operating Systems, Assembly, Digital Design.

Key Achievements

Shipped AAA Frameworks: Engineered core gameplay systems for the latest entry in the *Mafia* franchise (100M+ lifetime franchise sales).

Workflow Optimization: Authored proprietary tools at Hangar 13 that reduced content iteration times.
Engine Versatility: Proven track record working inside commercial high-end engines (UE5) as well as deeply customized proprietary architectures (EGO).

Languages

Greek (Native) English (Fluent)

Hobbies / Interests

Games are my passion. Some of my favorites are:
C&C, Age of Empires, World of Warcraft, Mario and Rabbits, Zelda, Lineage 2, Guild Wars, StarCraft 2, God of War, Final Fantasy, Raft, Hades.
Occasionally I play D&D, Bang, Risk, Monopoly, and other board games.
Volunteered with a team of 25 people to help clean and repaint the building of a day nursery.
Swimming, sailing and basketball are my favorite outdoor activities.
I enjoy watching theater, and movies. Also, I write theater scripts.