

# Adam NIECKARZ



## PROFILE

Game development offers great opportunities for solving unusual and interesting problems. Being the one to build these solutions is exactly where I want to be, seeing a complex system come to life is a reward of its own. I want people to enjoy the results of my work by having genuine fun and living through stories that games can tell.

## CONTACT DETAILS

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in/adam-nieckarz

Katowice area, Poland / Remote

## LANGUAGES

- **Polish** (Native)
- **English** (Fluent - C1/C2)

## SKILLS

- C++, DirectX 11
- Unreal Engine, Blueprints
- Unity
- Perforce, Git
- RenderDoc

## EXPERIENCE

SOFTWARE ENGINEER INTERN at *Sperasoft* **2023.11 – 2024.02**

- ◇ Contributed to feature development of career mode and legacy system migration within an EA Sports game, implementing new functionality from technical specifications in a large-scale C++ codebase.
- ◇ Used Perforce and Helix Swarm for version control and code review.

## PROJECTS

CYBERNINJA VR (*Unreal Engine 5, C++, Blueprints*)

- ◇ Dynamic, real-time skeletal mesh slicing – no predetermined cut mesh assets needed. Utilises multithreading to avoid blocking the game thread, as well as object pooling.
- ◇ Full-body player avatar, with realistic arm rotation – elbow position and orientation derived from the wrist transform to ensure a plausible-looking rotation.
- ◇ Enemy AI implemented through State Trees and EQS.

VOXEL RENDERER (*C++, DirectX11*)

- ◇ Built from scratch using DirectX11 and WinAPI, no engine.
- ◇ Deferred rendering pipeline with PBR shading, shadow mapping, bloom and tone mapping.
- ◇ Chunk-based geometry batching to minimise GPU draw calls.
- ◇ Multithreaded chunk meshing to avoid blocking the main thread during block updates.

SKELETON SLAYER – FIRST-PERSON MELEE SLASHER  
(*Unreal Engine 5, C++, Blueprints*)

- ◇ Swing manipulation system – camera-driven upper body rotation during attacks, allowing trajectory control, inspired by Mordhau/Chivalry games.
- ◇ Fluid combo system – The player can mix and match their attacks freely, including blocking mid-combo.
- ◇ Enemy AI implemented through Behavior Trees and EQS.

## EDUCATION

MSC IN COMPUTER SCIENCE. *Silesian University of Technology*.  
**2025 – Present**

- ◇ Computer Graphics Specialisation – Unity, Unreal Engine, Graphics APIs, AR/VR.

BSC IN COMPUTER SCIENCE. *Silesian University of Technology*.  
**2021 – 2025**

- ◇ Computer Graphics Specialisation – Unity, Unreal Engine, Graphics APIs.

## HOBBIES

*Video Games:* I enjoy all sorts of games, but I have an extra soft spot for games that are focused on player's mechanical skills and knowledge, like Monster Hunter or Soulslikes.