

Reşit Kaya

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📁 PROFESSIONAL EXPERIENCE

Game Developer 10/2024 – Present | Remote

Gnarly Game Studio

- Developed **6 high quality prototypes** over the course of a year in genres spanning **roguelites, shooters, board-based** games as the **lead developer**.
- **Designed and implemented events** to drive up multiple metrics in games that has a total of **200 million downloads**.
- Created multiple **playable ads** for existing games using **Unity Playworks/Luna**.

Game Developer Intern

10/2023 – 12/2023 | Ankara

Illuminate Studios

- **Developed interactive simulations for METU Biology Dept.** Of various biological molecules, including RNA, ribosome, mRNA, and other related entities, to accurately represent the protein synthesis process.

📖 ARTICLES

[Goal-Based Vector Field Pathfinding \(Flow Field\)](#) 🔗

- This algorithm is used to **manage pathfinding of large numbers of entities**. This version makes entities prefer **paths with gentle slopes** so it may not result in the shortest path possible. Unlike general flow field algorithms this one **works in 3D since it considers slopes**.

📁 PROJECTS

[Ladder](#) 🔗

- Currently developing a **friendslop** game called Ladder. **Photon fusion** is used for networking with **Forecast Physics**.

[Convolution](#) 🔗

- Implemented a matrix convolution pipeline in **C** using **AVX2 SIMD, OpenMP, and cache-aware memory optimizations**, achieving an **87x speedup** (21.75s to 250ms) over the naive implementation.

[Camping](#) 🔗

- Implemented **server-authoritative networking** for NWH Vehicle Physics 2 vehicles using **FishNet**, including **input and physics-state replication**.

[Procedurally Animated Spider](#) 🔗

- Implemented **procedural animation** and **inverse kinematics** in Unity for realistic spider movement.

[Steering Behaviours](#) 🔗

- Simulated natural fish movement in Processing using boid algorithms from Craig Reynolds' famous article [Flocks, Herds, and Schools: A Distributed Behavioral Model](#) 🔗

🎓 EDUCATION

Hacettepe University

2020 – 2025 | Ankara, Türkiye

Bachelor of Science - Mathematics

🧠 SKILLS

Programming Languages

C, C#

Languages

Turkish, English