

# DENIZHAN TOPRAK

## GAME DEVELOPER

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### SUMMARY

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Computer Engineer specialized in Game Development. I have worked with multiple companies and strengthened both my technical and collaborative skills. I enjoy creating tools and robust system designs that make projects more enjoyable, efficient, and scalable.

### PROFESSIONAL EXPERIENCE

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#### Archinord Software - C++ Developer

Sep 2024 - July 2025

- Using **Unreal Engine 5** I led the development of multiple architecture visualization projects.
- Created **Engine Tools** to get live data from **AWS** servers to display live information about the residences (Such as *price, media, and other metadata*) to display to product users and developers.
- Created project **Patch System** to update our client's projects using **AWS Cloud Systems** and **Unreal Engine 5** to reduce development time and increase user feedback.

#### Retter Business Services - Software Developer

July 2021 - July 2023

- Created **NodeJS backend** methods for retail web projects that are used in *login, order, cart* and payment that were run on **AWS's** several web tools.
- Participated in various projects from the start, documenting and addressing issues. (including *Pınaronline, Jotun, Koçailem, Unishop.*)
- Used **Jira** as the **project management tool** to create, follow and test tasks for other developers.
- Developed **generic automated backend tests** mainly in **N8N**, enhancing bug detection and project stability.
- Created documentation** for the Retter for their custom web development tools.

#### Unreal Engine Tools - C++ Tool Developer

July 2021 - Active

- Developed multiple **Unreal Engine plugins** to be used by indies or studios including *interaction, ability, input, and inventory systems*.
- Built optimized and modular frameworks that are extendable and customizable for projects.
- Created data-driven, designer-friendly **network-ready**, systems and extended Epic's **Gameplay Ability System**.
- Produced full *technical documentation, tutorials, and devlogs* for all tools.
- Published, maintained, and marketed plugins on Fab Marketplace and GitHub.

#### Indie Game Project - Lead Developer

July 2022 - Active

- Developed a full-scale game project, building gameplay systems, AI, UI, tools, and core mechanics.
- Designed modular and scalable architecture using **C++** and **Unreal Engine** frameworks.
- Implemented custom systems (interaction, combat, inventory, tools) later extended into standalone plugins.
- Created and designed game art, including animation, sounds, materials, particles and 3D assets.
- Managed all aspects of development including planning, project management, prototyping, optimization, and technical documentation.
- Created **multiplayer** beta builds and made unit tests.
- Created a cross-platform **UI Framework** that is build on top of the Epic's **Common UI**.

## SKILLS

Jan 2023 - Jun 2023

Unreal Engine 5  
Agile Development

AWS  
Animation - Cascedour

SCM - Git, PlasticSCM, Perforce  
3D - Blender

## EDUCATION

Bachelor of Computer Engineering  
Marmara University

Sep 2019 - July 2023

## PROJECTS

**Unreal Engine C++ Plugins** - <https://elmarathstudio.netlify.app/>

Some of my plugins are listed with their descriptions. Further information is in the documents.

- **Stage Interaction System:**
  - Stage based approach for gameplay interactions, where each interaction state can be handled independently and modularly in multiplayer games using **State Trees**.
- **Ability Queue Task System:**
  - Using the full extend of **Gameplay Ability System** by Epic, with additional, non-destructive, customizable **Input Queue** system that enables fluid action transitions for any type of game.
- **Modular Inventory System:**
  - Object based replicated inventory system where each item has the potential to hold other items as containers in a grid based system. Items use **Data Registry**, **GameplayTags**, **Instanced Data Fragments** in order to make modular and scalable systems.
- **Easy Skeletal Mesh Merge Async:**
  - Merges skeletal meshes to one at runtime in networked environments to optimize our players, NPC's, weapons etc. further.
- **Easy Ability Set Sytem:**
  - Extension to **Gameplay Ability System**. By handling gameplay ability granting-clearing in bulk it gives desired friendly UI to studios with extra features: Auto Input-Ability binding, Effect Sets etc.
- **Dynamic Input System:**
  - Flexible, runtime input management system for Unreal Engine that allows developers to dynamically bind, modify, and manage input mappings during gameplay based on game context.

### Software Development Projects

Some of my software development projects are listed here with their links.

- **Complaint\_tr** - [https://github.com/etzellux/complaint\\_tr](https://github.com/etzellux/complaint_tr) :
  - Using **Microsoft ASP.NET Core** we have developed a working example complain system on web.

## ADDITIONAL INFORMATION

- **Languages:** English, Turkish.
- **Student Clubs:** Marmara University Game Development - Founder/Chairman