Aymen Hammami

Final Year Software Engineering Student | Gamer & Developer

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I'm Aymen, a final year software engineering student with a passion for games & programming, along with strong skills in Unity | C# & Unreal Engine 5 | C++. I've been fortunate enough to contribute to incredible projects both on my own and as part of a team.

PROJECTS

For additional projects & information, please visit my portfolio!

Gameplay Programmer | Prince Of Persia ATARI ST Remake

Lanterns Studios | Internship Project | Unreal Engine 5 | C++

- Developed player mechanics and animations related to locomotion (jumping, running, slow walking, hanging, climbing up, dropping down), fighting actions (equip / unequip weapon, dash, attack, parry, finish enemies) and interactions with gameplay objects.
- Implemented gameplay systems such as: reusable health component, configurable falling damage set by a curve and customizable player camera.
- Programmed more than 17 props including falling platforms, doors, spikes, potions..
- Implemented the enemy AI behaviour, ensuring it's aware of the player's actions and knows when to equip/unequip sword, chase the player, parry, evade and attack.

Gameplay Programmer | Follow The Light

Individual Project | Unity 3D | C#

- Single-handedly designed and implemented the player's gameplay mechanics, such as movement, jumping, bouncing, wall hopping, changing perspective...
- Developed a Finite State Machine in C# to manage the various states of the player character, enabling smooth transitions between actions and behaviors.
- Implemented camera-relative movement for the player, allowing seamless control of the character's movement direction.
- Implemented both PC and Gamepad controls using Unity's new Input System, providing players with flexible input options.

Unity Programmer | Fablab Machines Discovery

Orange Digital Center | Team Project | Unity 3D AR | C#

- Implemented interactive UI elements, UI events and engaging animations using C#, bringing the designers' ideas to life.
- Integrated Vuforia SDK and implemented an error-handling system, enabling consistent machine recognition and accurate overlaying of information in real-time.
- Created 5 popup types that can be displayed around any recognized machine.
- Actively participated in Scrum meetings, sprint planning, and contributed with creative ideas such as adding a 3D simulation for each machine.

WORK EXPERIENCE

Gameplay Programmer Intern | Lanterns Studios   Jun 2023 - Jul 2023

- Learned Unreal Engine 5 and got familiar with C++ use cases, Blueprints, AI Behaviour, Animations, Input Handling, UMG and the implementation of core game systems.
- Recreated the iconic Prince Of Persia using Unreal Engine 5 from scratch and published a playable version on itch.io, along with a launch trailer. Details of my contributions to the game can be found in the **Projects** section above.

Full-Stack Developer | Cynoia   Jun 2022 - Feb 2023

- Worked on front-end and back-end features of a file manager: uploading single or multiple files, previewing, downloading, renaming, deleting, moving, adding to favorites, sharing options, managing access, sending system emails, user activity logs and action history.

EDUCATION

Software Engineer's Degree
2021 - 2024
South Mediterranean University, MedTech

Pre-Engineering
2019 - 2021
South Mediterranean University, MedTech

PROGRAMMING

Unreal Engine 5 & C++
Unreal Blueprints
Unity & C#
Full-Stack Development

ENGINEERING SKILLS

- Software Architecture
- Source & Version Control
- Object-oriented Principles
- Understanding Of Data Structures
- Familiarity With Design Patterns
- Agile Development & Collaboration

AWARDS

Best Software Engineering Project
May 2023 - SMU, MedTech

Hackathon 2nd Prize Winner
April 2023 - 24H Game Dev Hackathon

Best Software Engineering Project
May 2022 - SMU, MedTech