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.

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

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

ENGINEERING SKILLS

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

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++   3 Months

- 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, falling damage set by a curve and customizable player camera.
- Programmed more than 17 configurable props including falling platforms, doors, spikes..
- 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.
- Created UI elements and tutorials for multiple aspects of the game that have adaptable button indicators depending on if you're using keyboard or gamepad.

Gameplay Programmer | Follow The Light

Individual Project | Unity 3D | C#   2 Months

- 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#   3 Months

- 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.