

Moataz Hellal

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EXPERIENCE

Intern in AI Development for Train Simulator

February 2024 - August 2024

CORYS Dynamic Simulation

Grenoble, France

Joined the R&D team of the Transportation Unit to develop an AI module for rail passenger simulation using Unreal Engine 5:

- Collaborated with a team to simulate realistic boarding and alighting flows through Smart Objects, Behaviour Trees and State Trees
- Assisted in the design of the module's architecture and its implementation through c++ and Blueprints.

VR Game Development Intern

 $June\ 2023-September\ 2023$

Lanterns Studios

Tunis, Tunisia

Contributed in the development of a VR shooter featuring time-manipulation mechanics using UE5:

- Implemented smart AI behavior using Unreal's perception system and EQS
- Participated in gameplay features development, involving design and implementation of abilities, weapon system and Chaos particle destruction.

Game Development Intern

June 2022 - September 2022

Lanterns Studios

Tunis, Tunisia

Participated in the development of a physics-based puzzle game using UE4:

- Implemented realistic physics system and elemental interactions.
- Contributed to the design and development of gameplay features focusing on intricate puzzles and obstacles

Freelancer

Tunis. Tunisia

- Took part, within a startup setting, in the creation of a VR assistant for train passengers, which involved crafting multi-functional maps using Unreal Engine 4.
- Instructed and mentored junior game developers in Unreal Engine 5.

PROJECTS

Academic Project: Virtual Furniture Tester

January 2023 - May 2023

National Institute of Applied Science and Technology

Tunis. Tunisia

• Developed an Augmented Reality mobile application facilitating the virtual placement of furniture within domestic environments using UE5 and a combination of Blueprints and C++ scripts.

Library Of Games

 $Tunis, \ Tunisia$

A portfolio containing a collection of games from a wide range of genres: Multiplayer FPS, RPG, VR ... Available here.

EDUCATION

Master's Degree in Software Engineering

September 2019 - October 2024

National Institute of Applied Science and Technology

Graduated with high honors as a Software Engineer at National Institute of Applied Sciences And Technology

SKILLS

Frameworks: Unreal Engine, Unity, ARCore.

Programming Languages: C++, Blueprints, C#, C, Java, Javascript, python, SQL.

 ${\bf Developer\ tools:} Perforce,\ Git,\ Github,\ Android\ SDK,\ Docker.$

Graphic design and 3D software: Blender, Photoshop.

LANGUAGES

Arabic(Native), **English** (Full professional proficiency), **French** (Full professional proficiency), **Japanese** (Conversational), **Spanish** (Conversational).