# HUDA RASMEY

## Unreal / Unity Game Programmer

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## EDUCATION

### Liverpool JM University
### Master of Business Administration (MBA)
### 2024 – Present
◆ Leadership and Scholarly Business Practice.
◆ Exploring Strategy for Organisations.
◆ Operationalising the Strategy.
◆ Transforming Organisations and Business Research
◆ Consultancy Business Project

### Information Technology Institute
### Game Developing Diploma
### 2011 – 2012
◆ 9 Month Diploma, Information technology institute (ITI) – Game Developing Department.
◆ Graduation Project: Android - Casual game (Fluffs) using Unity3D.

### Ain Shams University
### Bachelor of Computer Science (BSC).
### 2006 – 2010
◆ Scientific computing department.
◆ Graduation Project: (3D photo exploration (C#, python, and OpenGL)): using the point clouds generated by bundler to generate 3D models

## EXPERIENCE

### Information Technology Institute
### Instructor (computer graphics using OpenGL)
### 03/2019 – Present
◆ Teach Computer graphics concepts and apply it using OpenGL and c++.
◆ Teach unreal engine (when needed)

**Ironbelly Studios**
**Unreal Game Programmer**
**01/2023 – 08/2024**

- Developing PC Games Using Unreal and C++.
- Build new features (Queue system using new input system and GAS, AI plugin, ... etc).
- Enhance old code and add new features (Throwable system, .. etc).
- Lead fresh men and guide them during onboarding process.

**Toptal**
**Senior Game Developer**
**10/2022 – Present**

- Developing PC games using Unreal and C++.
- Developing mobile games using Unity and C#
- Communicate with the clients to know their needs.

**P1Games**
**Volunteer Game Developer and Tech Lead**
**05/2024 – Present**

- Break down the idea into tasks, create a Trello board and Git project, and make sure we deliver on time.
- Lead the tech team.
- Developing games using Unreal/Unity and C++/C#.

**Instinct Games**
**Senior Unreal Game Programmer**
**04/2021 – 01/2023**

- Developing PC Games Using Unreal and C+ + .
- Communicate with VFX team and integrate their work.
- Collaborate with QA to tack and fix bugs.

**BeSteam**
**Lead Unity Game Developer**
**06/2020 – 02/2021**

- Unity 3D and webGL.
- Manage the team to deliver tasks on time.

## PentaValue
### Senior Unity Game Developer
**11/2019 – 03/2023**

- Make VR/AR/mobile (multiplayer, single player) games and Applications using Unreal engine and unity3D.

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## FunRock
### Senior Unity Game Developer
**07/2018 – 03/2019**

- Responsible for the game frontend and UI for Android and IOS platforms.
- Build new features (reinforcement system, Events and Quests system, etc.

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## Cryptyd Game Studio
### Senior Unity Game Developer
**03/2018 – 07/2018**

- Responsible for the game backend and network using kii and playfab for Android and IOS platforms.

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## 5D- VR
### Lead Unity Game Developer
**03/2015 – 02/2018**

- Responsible for managing and developing virtual reality games using (Kinect - HTC VIVE- Oculus and Oculus touch – Samsung gear – cardboard) , also developing Augmented reality Applications for IOS and Android.
- develop multiplayer games using gamesparks.

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## ABC- Egypt
### PartTime Project Manager
**12/2017 – 04/2018**

- Responsible for managing development and Art teams to develop a virtual Exhibit.
- Manage Web team to make sure the update and add new features to the website on time.

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## Rawy Kids
### Unity Game Developer
**04/2013 – 04/2014**

- Responsible for developing an IOS/Android unity-based Comics Application.
- The application's main target is to teach the children social manners but funnily and creatively.

- The application was dynamic the user should download it only once and the updates are all dynamic using asset bundles and API.s.
- The application contains in-app purchasing using soomla. And push notifications using push woosh

## KEY ACHIEVEMENTS

### Designed and Implemented a dynamic camera system (unreal)

Create a dynamic camera system that adapts to various gameplay situations and integrates easily with other systems like locomotion, combat, or dialogue. The system should allow the creation of new camera profiles that can either override existing ones or be added to them.

**Core Features:**
- Camera Profiles define the behavior and parameters of the camera (e.g., field of view, position, rotation, offset, damping, etc.).
- Easy to create new profiles and switch between them dynamically based on gameplay needs.
- The system handles smooth transitions between profiles, including blending the camera's position, rotation, and field of view.
- Transitions are configurable (e.g., transition speed, ease-in/out curves).
- Seamlessly integrate with locomotion, combat, dialogue, or cinematic sequences.
- Respond to gameplay events (e.g., entering combat, sprinting, aiming) by switching or blending camera profiles.
- Allow dynamic switching and modification of camera profiles at runtime.
- Additive profiles allow for layered adjustments to the camera (e.g., zoom in without changing the base profile).
- You can blend multiple additive profiles simultaneously to combine effects (e.g., aiming while sprinting).

### Design and implement an input/ability queue system based on GAS (unreal)

Design and implement an input/ability queue system based on GAS (unreal)
Develop a system that tracks user inputs (pressed/released) and manages abilities in a queue, ensuring abilities are fired at the best possible time while considering various conditions and priorities.

**Core Features:**
- Monitor whether a user input is pressed or released.
- Queue blocked or unfired abilities that cannot be triggered immediately due to cooldowns, being blocked by another ability, or resource constraints.
- Queue is dynamic, adjusting based on designer input conditions.
- Provide an option for each ability to be released automatically after a predefined time.
- The time and option (auto-release or expiration) are configurable by user input for each ability.

- Continually check if the input for the queued ability is still pressed or if it has been released, If the input is still pressed, the ability will remain in the queue, waiting for the best opportunity to fire. If the input is released, the system can be configured to either cancel the ability or continue firing the ability if it's allowed to fire after release.

### AI Plugin: Attack Token System Design

Extend the existing AI plugin by introducing an Attack Token System, which enables the AI to dynamically switch between different attack strategies based on the current situation. Each attack strategy is represented by an attack token, and the AI can prioritize or combine tokens depending on the context, such as player behavior, distance, and AI status.

## AWARDS

### GDC Full access Ticket 2022
- Awarded the GDC full access ticked due to attending all the global gamejams and never missing one.

### Firts place in hackthon 2015 over Egypt and Africa
- Joined as a team of 3 developers and we won over Egypt then we won over Africa with a simple kids VR
- The game is talking about the environmental issues, its causes and how we can help protecting the earth from it

### Fourth place in Gaming Egypt Competition 2012
- Mostamera" is a mobile game about Egyptian Revolution that we made for Gaming Egypt Competition that was held by blackberry and Nokia
- http://www.gamingegypt.com/

### ITI Scholarship
- Awarded the Ministry of Information and Communication scholarship to obtain a postgraduate diploma at the Information Technology Institute

## References

**Nourhan Hussain (Team Lead - Ironbelly Studios) :**
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- +20 100 335 8686
- Relationship: Direct lead

**Ahmed El-Meshry (Team Lead - Instinct Games)**
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- Relationship: Direct lead

**Wael Ragaey (Project Manager - 5d-VR)**
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- Relationship: Direct lead