

# MOSTAFA HANY

mstfa.hanyy@gmail.com | +201028322108 | Giza, Egypt

[Portfolio](#) | [Linkedin](#) | [GitHub](#)

## EXPERIENCE

### Unify AI | Software Engineer

Remote | Aug 2022 - Jan 2024

- Led the testing team.
- Designed and implemented a proof of concept for a source-to-source transpiler to convert code between different deep learning frameworks, e.g., TensorFlow to PyTorch.
- Redesigned the testing framework to enhance modularity and readability, achieving a 50% reduction in code size and making the code multi-processing friendly.
- Designed and implemented functionality to support importing multiple instances of the framework with different backends at runtime, reducing the average test runtime from 120 seconds to 10 seconds.
- Designed and implemented an API backend generation feature using Python's AST (Abstract Syntax Trees), allowing developers to generate a new API backend with only a few lines of configuration.
- Extended the integration of fuzzy testing (Hypothesis) in the testing framework to specifically meet our requirements with less runtime overhead and reduced code.
- Extended and maintained the Ivy framework support on Windows.
- Added support for GPU testing in the testing framework.
- Conducted over 30 technical interviews.

## PUBLICATIONS

### Accelerating Deep Learning using Ivy | [Link](#)

NeurIPS, 2023

Guillermo Sanchez-Brizuela, Ved Patwardhan, Matthew Barrett, Paul Anderson, **Mustafa Hani**, Daniel Lenton.

## RELATED SKILLS

**Programming Languages:** C++, C, GLSL, Python, Lua, Bash

**Libraries / Frameworks:** OpenGL, ImGui, Assimp, GLM, GLFW, SDL

**Tools / Platforms:** RenderDoc, CMake, Premake, Docker, Git, Neovim

## EDUCATION

### Faculty of Computers & Artificial Intelligence - Cairo University

Giza, Egypt

Bachelor of Science Degree in Computer Science - Artificial Intelligence Major

Aug 2024

## PERSONAL PROJECTS

### 3D Renderer (Aker) | [Link](#)

C++, OpenGL, ImGui, Assimp, SDL, CMake

Cross-platform 3D renderer with OpenGL. Supports lighting, shadows, and model loading. Full scene editor with ImGui.

### Software Raytracer | [Link](#)

C++, Lua C API, STB, Premake

Cross-platform software raytracer from scratch in C++. Supports lighting, shadows and reflections. Embedded Lua C API for scene configuration using Lua file.

### CS:GO Object Detection | [Link](#)

Python, YoloV5, OpenCV

Detecting CS:GO objects using YOLOv5 with a custom OpenCV annotation script.

### The Office (Game) | [Link](#)

C#, Unity

Brackey's Game Jam 2021 submission. Built with Unity in 6 days.

### BingoBango (Game) | [Link](#)

C#, Unity, Steamworks SDK

Platformer game published on Steam. Utilized Steamworks SDK for Steam Achievements and Leaderboards.

## CERTIFICATIONS

- Fundamentals of Deep Learning workshop - NVIDIA DLI
- Machine Learning Cross-Skilling Nanodegree Program - Udacity