# RAMI WAIL SHOULA

+201119778840

[romioshoula@gmail.com](mailto:romioshoula@gmail.com)

I am a ***passionate voyager*** in the midst of an endless ocean of knowledge. ***Bachelor*** in Nanotechnology and Nanoelectronics Engineering. ***Game Develope-*** r at ITI Game Development Academy (GDA).

Interests include computer programming, VLSI design, EDA tools, embedded systems, Internet of things (IoT), artificial intelligence (AI), mixed signals, IC design and video game development. Recently completed ***Deep -­earning*** and ***LccelerateA dompCter ucience SCnAamentals*** specializations on **Coursera.** Currently pursuing ***Game Design anA Development*** specialization on Coursera and have successfully ***completeA the First coCrse***.

## I am *always* keen on learning the latest cutting edge technologies and am *constantly* on a path of self-improvement.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Technical Skills |  | Languages |  |
| Git | 5/5 | English | 5/5 |
| Matlab-­Simulink | 4/5 | Arabic | 5/5 |
| C-­C// | 5/5 | Jrench | 2/5 |
| C+ | 5/5 | German | 1/5 |
| Unity | 5/5 | &apanese | 3/5 |
| Unreal Engine | 5/5 |  |  |
| System Verilog | 4/5 |  |  |
| #ython | 5/5 |  |  |
| VHDL | 3/5 |  |  |
| HTML P CSS | 3/5 |  |  |
| &avascript | 4/5 |  |  |
| #H# | 2/5 |  |  |
| Verilog A | 5/5 |  |  |
| Cadence | 5/5 |  |  |
| Microsoft Office | 5/5 |  |  |
| Education |  |  |  |  |

F months #rofessional Training #rogram, Game Development , Information Technology Institute (ITI), Giza, Egypt

November 2021 — Present Courses/Programs covered include: -

C++ Object-Oriented Programming & Data Structures

Visual C# .NET Game Design

UI & UX Design

Computer Graphics & Shaders Unity3D

Unreal Engine Game Network

ArtiRcial Intelligence Virtual 6eality

9.S.C in Nanotechnology And Nano-Electronics Engineering, University of Science and Technology at Bewail City (BCZ UST), Giza, Egypt

201F — 2021

GPA around 3.0

Double Mocus concentration: Nano-VLSI

Nano-Mabrication and fEfS

I.G.C.S.E. High School Degree, M.S.G 9ritish International School of Egypt, Cairo

2015 — 201F

International General CertiRcate oH Secondary Education. GPA 4.0. fagna cum laude.

Employment Jistory Summer Internship at Bewail City of Science and Technology :

#art-time , Giza, Egypt

xanuary 2020 — fay 2020

Embedded SoHtware and Jardware Internship:

Implementing real satellite Terminal SoHtware. GSE, fPLS, SISAP communication protocols implementation. Jardware implementation oH 6TEfS on Xilinz qynW-7000 MPGA board.

&unior Researcher at Bewail City of Science and Technology :

#art-time , Alexandria, Egypt

xanuary 2019 — December 2020

Design and implementation oH T-shape microKuidic chip Hor use in micro-droplet and xanus particle Hormation. Simulation carried out on

Cadence soHtware. CAD tools utiliqed in modeling include SOLID(O6)S & CO6ELD6A( soHtware. Physical design laser-printed at Egypt xapan University BE-xust= Hor practical testing.

Game Developer at Information Technology Institute (ITI) : Jull-time, Giza, Egypt

November 2021 — Present

9 months proHessional Training Program Student. Game Programming Specialiqation ITI - Game Development Academy BGDA= - Intake I42. A product based program that will empower you to learn the reWuired skills and knowledge in all aspects oH Game Development Hrom the basics to the advanced topics, Hrom a real-world industry perspective to develop 2D, 3D and X6 game applications to build a top-notch portHolio.

Eztra-curricular activities IT, Media P Marketing committee head at EUROAVIA, Bewail City,

Giza, Egypt

201F — 2017

Committee member at IEEE, Bewail City, Giza, Egypt

201F — 2018

Volunteer at Resala Charity Organization, Giza, Egypt

2017 — 2018

Volunteer Hor Hundraising and aiding the charity organiqation in Cairo branch

Courses Accelerated Computer Science Jundamentals Specialization at Coursera

December 2021

Deep Learning Specialization at Coursera

xanuary 2022

Game Design and Development ·Z 1D Shooter at Coursera

xanuary 2022

Ezperience Undergraduate Mems and Microfluidics Graduation #ro2ect With Excellent Grade at BCZUST under supervision of Dr. Noha Gaber, Giza, Egypt

2020 — 2021

Design oH novel electrostatically powered peristaltic micropump with a single chamber and NED cantilever structure. A thorough Habrication recipe was developed. NED cantilever structure provided a permanent solution Hor pull-in e−ect in electrostatic based systems. (ide range oH applications as it can be used in precise drug delivery/dosing systems, developing cooling systems Hor electronic systems, such as System-on-a-Chip and embedded systems, as well as Lab-on-a-Chip and testing kits. ITAC-CMP - ITIDA Munding.

ASIC Design And Implementation Of j1 9it Mac Unit at BCZUST under supervision of Dr. Hassan Mostafa, Giza, Egypt

2019 — 2020

Cadence Virtuoso Simulation design and implementation oH 32 bit fAC unit with pre- and post- layout merits Bdelay, power &area=

Analog Mixed Signals ·3-bit SAR ADC at BCZUST under supervision of Dr. R. El-Damak, Giza, Egypt

2021 — 2021

Design oH a 10 bit ADC Hor wearable brain computer interHace system using the 90 nm generic PD) on Cadence Virtuoso with 1 V supply with a 32 kJq sampling rate. Implementation oH rate Successive Approzimation 6egister BSA6= ADC, Sample and hold circuit BSJA= and Digital to Analog Converter BDAC=. The ENOQ and SN6 are measured to be F.7, 42.22 dQ respectively, giving a MOf ; 2.85px /Conv > step.

Testing And Verification Of I# In UVM Environment at BCZUST under supervision of Dr. Hassan Mostafa, Giza, Egypt

2021 — 2021

Implementation oH Universal VeriRcation fethodology BUVf= using UVf

1.2 package on EDA playground / System Verilog. Testing and veriRcation oH encrypted intellectual property BIP=.

C// Connectivity Matrix and #artitioning EDA Algorithm at BCZUST under supervision of Amr Nabil Helmy, Giza, Egypt

October 2019

(ritten a C++ program which partitions an even number oH cells using

)ernighan-Lin partitioning algorithm aHter obtaining the connectivity matriz oH the cells. The input was a pin-oriented netlist, and the output clearly speciRed which cells belong to which block.

C// EDA Junctional Algorithmic #ro2ect at BCZUST under supervision of Amr Nabil Helmy, Giza, Egypt

November 2019

(ritten a C++ code to read netlist data Hrom a tezt Rle, eztract the

di−erent paths, calculate the mazimum propagation delay Hor each node, do

proper partioning, perHorm Koor-planning and then Rnd the longest path and determine the suitable clock period.

OO# P Data Structures for Game Development, ITI GDA I01, Giza, Egypt

November 2021

Combination oH C/C++ OOP projects :

Implement fagic boz algorithm, and switch menu Console program Employee Structure application using dynamic allocation , Line editor using pointers

Double linked list Stack, –ueue binary search; bubble sort; selection sort Traverse Qinary Tree nodes using recursive Hunctions

Design and Implement Class Complez, copy constructor to Class Stack Operator overloading in Class Complez, Abstract Class pure virtual methods

C// Resizeable 1D maze generation using vectors, ITI GDA I01, Giza, Egypt

December 2021

C++ Quild oH Console program that randomly generates a resiqeable 2D maqe based on vectors. SMfL implementation to allow the user to translate in the generated maqe paths to reach a generated goal then choose to replay or close the program.

Computer Graphics using OpenGL, ITI GDA I01, Giza, Egypt

December 2021

C++ / OpenGL Implementation oH Obj loader. Using glsl shader Rles to manipulate Hragment and vertez shaders. Mractal Bfandelbrot=

implementation. 3D simple maqe GUI game using openGL utiliqing created fesh, Camera, Gameindow and Shader classes.

&avaScript and HTML4, ITI GDA I01, Giza, Egypt

December 2021

Created Space invaders web game. Phaser3 PC (eb browser mini-jam game over the course oH 3 days: Game concept -> Pen & Paper Prototype -> Game Pitch Document -> Game Assets & Art Creation -> Game programming and development -> Game Script -> Game Demo -> Minal Game Bitch.io build=.

Visual C+ .NET, ITI GDA I01, Giza, Egypt

xanuary 2022

1. Language-Integrated –uery BLIN–= Operators: 6estriction, Element, Set, Aggregate, Ordering, Partitioning, Projection, –uantiRers, and Grouping

## Game Development Ezperience

1. Company Layo− system
2. Object Pooling Patterns to to create a simple Qullets Pool
3. C# Mull Ezamination UI system on C++ Data Structures concepts

9asic and Advanced Unity, ITI GDA I01, Giza, Egypt

xanuary 2022 — Mebruary 2022

1. 3D Urban City Game Scene, PreHabs, PreHab variants, Various Lighting
2. 2D PlatHormer with idle, jump sprite animations and player movement
3. 2D tilemap platHormer with various patrolling enemies and traps
4. 3D reKection and light probes baking and post-processing V6 Space room
5. Android touch screen UI Hunctions, canvas 2D memory game

F. UI leaderboard, registration Horm, puqqle Game with random generation builds

1. Tic Tac Toe game with singleplayer, multiplayer, AI, Scoreboard network Hramework
2. Cannon ball game with line renderer, physics and Procedural mesh generation
3. I) constraint, blend tree, animation rigging, scriptable objects and events
4. Node Qased Shaders Mundamentals with ampliHy

Details #lace of birth Egypt

Soft Skills xudgement and Decision faking Strategic Project fanagement Leadership

Entrepreneurship Communication Teamwork ACJIEVEfENTS

Qritish Council: CIPP Outstanding Achiever

2010 - 2011

Jabitudes Leadership Training 2014

2nd place in Alabakera TV Show competition

201F P6OxECTS

ASIC Mlow: Optimiqation oH Power, Area & MreWuency oH a designed 6TL Code using DC Compiler Tool.

Two-stage Operational AmpliRer using CADENCE BPre-Layout Simulation=

Audio AmpliRer Circuit - Design and Implementation using Cadence BPre-Layout Simulation=

Analog to Digital Converter

BADC= using CADENCE BPre-Layout Simulation=

fodeling a 90-nm NfOS and PfOS (ith COfSOL

Diamagnetically levitated electrostatic micromotor BDLEf= model and Habrication

Temperature Sensor based on Light Transmittance inside an optical Rber using COfSOL

NfOS Transistor Mabrication using SENTAU6US

(rite and develop C++ EDA tool to calculate connectivity matriz,

partition, perHorm Koor-planning and measure merits oH each path.

Design 6M / fized signals LNA in Cadence and ASITIC. ferits

calculated Hor pre- and post- BD6C, LVS and PEX= layout simulation.

Adv. fEfS simulation oH electrostatic microvalve.

Contact [romioshoula@gmail.com](mailto:romioshoula@gmail.com)

[s-romioshoula@qewailcity.edu.eg](mailto:s-romioshoula@qewailcity.edu.eg) [in/romioshoula](http://www.linkedin.com/in/romioshoula) [github.com/romioshoula](https://github.com/romioshoula) [Hacebook.com/rami.shoula](https://www.facebook.com/rami.shoula) romioshoula.itch.io [artstation.com/romioshoula98](https://www.artstation.com/romioshoula98)