

Omar Nasr

Software Engineer



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About me

Software Engineer that is passionate about science and technology especially Computer Graphics , Game Development & Robotics.

Skills

C++



C



Java



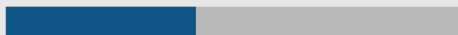
OpenGL



Unreal Engine



Web Development



Unity



[Skill rate is determined on how i am comfortable with certain technology.]

Education

2016-2021 Faculty of Engineering
Computer & Communications Department. GPA 3.16

Alexandria University

Awards

2018 5th Place in UGVC2018 with MindCloud.
2018 4th Place in Minesweeper2018 with MindCloud.

Experience

2017-Pres. Software Engineer at MindCloud
University Robotics Team.

Technical Team

Projects

Jul-2019 Minesweeper Grid Visualization Web Development [NodeJS ThreeJS]
NodeJS application to Visualize how the mines are put into the grid in Minesweeper robotics competition in Real-Time.

May-2019 SIC/XE Assembler Java JavaFX
Two Pass Assembler that translate SIC/XE to obj code.
-You can load your code file or you can write it directly into the Editor.
-After Successful Assemble the user can check the output from the 'Assemble' menu like the ListFile and the ObjFile.

Mar-2019 Lort Renderer C++ SDL
Optimized Software Renderer that written in an way to get high FPS.
-Fixed Point arithmetic.
-Perspective correct texture mapping.
-Lighting and Shadows
-OBJ Models Support.
-SIMD Maths.

Oct-2018 GameX Level Editor C++ OpenGL SDL CEGUI
User-Friendly Level Editor that helps to create 3D Environments.
-Stable For OBJ models [Supports other formats]
-config. file that enables flexibility for the user.
-General GLSL inputs that can be used for any user made GLSL files.
-Navigation mesh That helps to find walk-able areas of the map.
-Relatively good graphics with Directional & Point Light Support along with Normal mapping in Tangent Space, Reflective water surface and Shadows.

Jun-2018 Serial Reader Java JavaFX
Desktop Application that was made for Arduino ,reads from the serial in certain format and print them on the UI.

May-2018 Maze Runner Java JavaFX
Game that challenges the player to finish a maze.
-Flipbook animations on JavaFX Canvas.
-Different Design Patterns were used.
-Particle effects , Camera and other challenging game objects.

Apr-2018 Text Autocorrect C Java JavaFX
Uploads custom dictionary to an auto-balancing tree that is used to suggest correct words.
-Two versions AVL Tree[C], RB Tree [Java JavaFX]

Mar-2018 Paint Java JavaFX
Paint Software like the MS Paint using JavaFX Canvas.
-Drag & Drop Shapes. -Different Design Patterns were used.

Feb-2018 Asteroids 1979 C++ OpenGL
Clone of 1979 Asteroids retro game.

Nov-2017 Mine Sweeper C
Clone of Minesweeper Game.