## **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

Alexandria University

Computer & Communications Department. GPA 3.16

### Awards

2018 5th Place in UGVC2018 with MindCloud.

2018 4th Place in Minesweeper2018 with MindCloud.

#### **Experience**

2017-Pres. Software Engineer at MindCloud

**Technical Team** 

University Robotics Team.

### Projects

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

Desktop Application that was made for Arduino ,reads from the serial in certain format and print them on the UI.

-User can choose the baud rate and the Port of communication.

May-2018 Maze Runner

Java JavaFX

Game that challenges the player to finish a maze.

-Flipbook animations on JavaFX Canvas.

-Different Design Patterns to ensure project's quality.

-Particle effects, Camera and other challenging game objects.

Apr-2018 Text Autocorrect

Java JavaFX

Uploads custom dictionary to an auto-balancing tree that is used to suggest correct words.

Mar-2018 Paint

Paint Software like the MS Paint using JavaFX Canvas.

-Drag & Drop Shapes.

-Different Design Patterns to ensure project's quality.

Feb-2018 Calculator

Java JavaFX

Calculator Based on postfix & infix operations.

Feb-2018 Asteroids 1979

C++ OpenGL

Clone of 1979 Asteroids retro game.

Dec-2017 ConsoleRPG

Command line RPG game which you can do anything you may do in a RPG game from killing monsters, loot gold, buy/equip items and hunt treasures and level up for getting more stats.

Nov-2017 Mine Sweeper

Command line Minesweeper that is user friendly as you can move on the grid and save/load games and even compete over the leaderboard.