KARIM AL ABY

@ karim.mohamed420@gmail.com

☎ +201156177610 ● Egypt, Alexandria in linkedin.com/in/karim-al-aby ○ github.com/Karim-mo

ACHIEVEMENTS

- Solved over 200 competitive programming problems
- Graduation project featured on 10 of the top Egyptian newspapers
- Graduation project featured on DMC Live TV for an interview with Ramy Radwan

HONORS & AWARDS

- Graduation project was honored by Egyptian Minister of Communications and Information Technology
- Graduation project nominated and won a financial fund from Academy of Scientific Research

LANGUAGES

- C
- C++
- C#
- Java
- Javascript ES6+
- Typescript
- Python
- SQL
- Cypher
- HTML
- CSS
- SCSS

TECH STACK

- React.Js
- React Native
- Redux
- Node.Js
- NestJS
- Prisma
- ASP.NET
- Entity Framework Core
- Microsoft SQL Server
- PostgreSQL
- MongoDB
- Neo4j Graph DB
- Unity Engine
- ROS2
- Swagger
- Angular

EDUCATION

Bachelor of Science in Computer Engineering

Arab Academy for Science, Maritime and Technology (AAST)

📅 September 2016 – July 2021

Bachelor of Science in Computer Engineering (Dual Degree)

University of North Hampton (UoN)

📅 September 2018 – July 2021

PROJECTS

Social Humanoid Robot to aid children with ASD using ROS2 (Graduation Project)

- A Robot created using ROS(Robot Operating System) to connect modules together to help educate children with ASD(Autism Spectrum Disorder)
- Using ROS on a Raspberrypi to communicate with sensors and actuators for feedback and interaction & Unity Game Engine for developing educational modules on an Android Tablet

Social Events Management Website using React JS & Paypal

- Social Events Hosting for locally hosted events and a live streaming feature for virtual events using RTMP Servers
- MongoDB Integration with Node.JS for backend
- Redux for global state management
- Paypal integration using server-sided implementation for security reasons

E-Commerce Website using React JS

- Online Shopping with user login, registration & cart management
- MongoDB Integration with Node.JS for backend
- Redux for global state management
- Paypal integration client-sided

Snake Online Multiplayer with Java & Node.JS

- A Snake game coded with Java using LibGDX 2D engine
- Node.JS with Socket.IO backend to handle game events

Unity 3D Game "Natural Selection" (Multiplayer)

- A C-Sharp coded 3D shooter game using Unity engine
- Humanoid Animations using Inverse Kinematics
- Online multiplayer support with lobbies

Unity 2D Game "Survival Instinct" (Multiplayer)

- A C-Sharp coded 2D pixel-art game using Unity engine and Photon PUN 2
- Uses A* Pathfinding algorithm for NPC's to navigate around nodes.
- Android & iOS Support
- Cross-platform multiplayer

Tic-Tac-Toe using C++

- Developed a 3x3 and a 5x5 board sizes with a deterministic AI opponent using min-max algorithm.