

OMAR RAYYAN

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EDUCATION

New York University Abu Dhabi

B.S in Electrical Engineering and Computer Science

August 2021 - Present

GPA: 4.0

IEC School

7A IGCSEs and 4A* A-Levels*

August 2019 - June 2021

GPA: 4.0

- Top in Country Physics A-Level - Queen Rania Outstanding UK Learner Awards
- Top in Region Across 7 IGCSEs - Cambridge Assessment International Education Awards

WORK EXPERIENCE

Google

STEP Engineering Intern

July 2023 - Present

Munich, Germany

- Working in Google's Munich office with the computer and infrastructure storage team.

Center for Artificial Intelligence and Robotics (CAIR)

Robotics Engineering Research Assistant

Sept 2022 - Present

Abu Dhabi, UAE

- Developing a ROS Algorithm for Precise Control of the KUKA iiwa-14 R820 Robot with Differential Kinematics and Remote Center of Motion (RCM) Constraint Adherence in Minimally Invasive Surgery (MIS).
- Fabricating, and integrating novel robotic tools with trajectory planning algorithms to mimic invasive surgery movements.

ProgressSoft Corporation

Summer Engineering Intern

Jul 2021 - Sept 2021 & Jul 2022 - Sept 2022

Amman, Jordan

- Worked on and fully developed a tool to be used for internal testing by banks all around the Middle East using Spring Java Framework
- Was involved in programming, documenting and testing applications, frameworks, and software components of Progresssoft ECC (Electronic Cheque Clearing) project
- Worked with multiple Java EE technologies including JSP and Servlets and used MVC design patterns

New York University Abu Dhabi

Engineering Research Assistant at AIM Lab

February 2022 - Present

Abu Dhabi, UAE

- Working on the development of KATIB: A handwriting assisting platform that provides contact-less kinesthetic feedback by utilizing magnetic forces. KATIB aims to help post-stroke patients regain writing skills through its easy-to-use software. It enables patients to perform physical tasks while receiving real-time feedback from their therapists.

PROJECTS

KATIB

Developer

Feb 2022

[Github Repo](#)

A handwriting assisting platform that provides contact-less kinesthetic feedback by utilizing magnetic forces. KATIB aims to help post-stroke patients regain writing skills through its easy-to-use software. It enables patients to perform physical tasks while receiving real-time feedback from their therapists.

LEBSI
Developer

November 2021
iOS App

LEBSI enables people and clothing brands to set up online stores in minutes. Hence, sellers no longer have to manage their stores across multiple social media platforms at the same time. Reached #21 on App Store Top Charts

Fine Day
Developer

January 2021
Github Repo

"A Fine Day" is a gamified version of stroke rehabilitation that allows patients to regain their limbs functionality in an engaging environment and therapists to remotely track patient progress. We focused our efforts on developing games that target patients' range-of-motion and motor skills by integrating VR (Oculus Rift) and hand-tracking (Ultraleap) devices.

Qatra
Developer

August 2021
iOS App

Qatra is a platform that connects those in need of blood units in Jordan with potential blood donors. It allows users to register by inputting their blood type and place of residence. Once users register, they will receive notifications when local and nearby hospitals request units similar to their type.

Past Code
Developer

February 2021
App Store

Past Code is an app that helps international students find supporting exam papers using their phone camera. Specific patterns are extracted from images to match their document with supporting papers. As of January 2022, over 200,000 papers from 64 different countries were scanned on Past Code.

AWARDS

IEEEExtreme Coding Competition
October 2022

New York University Abu Dhabi

4th on the United Arab Emirates - Problem Solving

Cambridge Assessment International Education
Saudi Arabia and Jordan

Eastern Province
June 2020

- Top in Country in Physics International A-Level and Across 4 International A-Levels
- Top in Region Across 7 International GCSEs

COURSEWORK

Undergraduate - Electrical Engineering and Computer Science

New York University Abu Dhabi

Multivariable Calculus with Applications to Science and Engineering - Linear Algebra - Ordinary Differential Equations - Data Structure - Discrete Mathematics - Algorithms - Object Oriented Programming - Computer Programming for Engineers - Design and Innovation - Digital Logic - Circuits Fundamentals - Conservation Laws in Engineering - Engineering Statics - Foundations of Science

SKILLS

Python/JavaScript/C++/Java/Swift/JSP/Servlet/Angular/Spring/MATLAB/HTML/CSS