

# OMAR RAYYAN

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## EDUCATION

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### New York University Abu Dhabi

*B.S in Electrical Engineering and Computer Science*

August 2021 - Present

*Abu Dhabi, UAE - GPA: 4.0*

### IEC School

*7A\* IGCSEs and 4A\* A-Levels*

August 2019 - June 2021

*Amman, Jordan - 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

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### Center for Artificial Intelligence and Robotics (CAIR)

*Robotics Engineering Research Assistant*

Sept 2022 - Present

*Abu Dhabi, UAE*

- Developing a deterministic Inverse Kinematics function for the KUKA iiwa-14 R820 with 7 degrees of freedom and integrating it to ROS (Robotics Operating System).
- 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
- Involvement 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
- Used various web application tools and frameworks including Maven as well as front-end technologies such as Javascript and CSS

### 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.
- Creating and developing a set of serious tasks that can be performed on the KATIB hardware.

### LEBSI

*Founder/Developer*

September 2021 - Present

*[App Store](#) - Jordan*

- 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. It provides physical stores with virtual marketplaces and allows them to expose themselves to potential customers, enabling them to compete with online brands.
- Reached #22 on the App Store Top Charts and finalist at the 2022 startAD NYUAD InnoVention Program

## PROJECTS

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**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. That was achieved by integrating VR (Oculus Rift) and hand-tracking (Ultraleap) to replicate motor skill and range-of-motion exercises.

**Qatra***Developer*

August 2021

[\*iOS App\*](#)

Qatra is a platform that connects those who are 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 blood units similar to theirs.

**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
- Top in Country Across 4 International A-Levels
- Top in Region Across 7 International GCSEs

**COURSEWORK****Undergraduate - Electrical Engineering and Computer Science**

Dhabi

New York University Abu

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 1: Energy and Matter
- Foundations of Science 2: Forces and Interactions

## **SKILLS**

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