

Alice Eid

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Baabda, Lebanon

Profile

Multimedia and AI engineer focused on assistive technology, inclusive education, and disability rights. Applied machine learning and computer vision techniques in assistive learning projects, with the goal of developing accessible, impact-driven technology solutions that reduce educational barriers.

Education

Université Antonine

2020 - 2025

BE in Computer and Communications Engineering – Multimedia and Networks

Collège des Pères Antonins - Baabda

2019

Baccalauréat Français - Spécialité SVT

Baccalauréat Libanais – SV

Workshops and Certifications

June 2021

Participant in the Gaming Academy, a series of online workshops that covered various aspects of game development, where I learned the basics of game programming and design.

Skills

- Mobile development: React Native
- Web development: React JS
- Desktop app development: Python, PyQt6
- Database: MySQL, MongoDB (NoSQL)
- Tableau Software (Data visualization)
- Programming languages: C++, Java, C# (with Unity)
- Design: Figma
- Adobe: Illustrator, Photoshop, InDesign

- Blender 3D

Languages:

- Arabic (Native Language)
- English (Fluent)
- French (Fluent)

Experience

Assistant Researcher internship at Antonine University

February 2025 – present

- Performing comprehensive survey of current research in Arabic OCR, particularly handwriting recognition challenges and solutions.
- Exploring and comparing ML/DL architectures (CNNs, RNNs, Transformers...) applied to sequence modeling and image-to-text tasks.
- Analyzing recent advancements in Arabic script processing, including dataset limitations and preprocessing techniques.
- Supporting the design and future development of a deep learning-based Arabic handwriting OCR system.

Internship at Areeba

April 2025 – June 2025

- React native front-end developer on the Zaky app, a digital wallet solution
- Improved UI structure and enhanced user experience through refined layouts and reusable components.
- Implemented new front-end features in collaboration with a cross-functional development team.
- Gained practical experience using Git for version control and team collaboration.

Internship at Agilis.dental

June 2024 – August 2024

- React native developer on the Agilis app, a dental management platform.
- QA tester on the web platform.

Volunteering

Organizer at the Gaming Academy

Organizer 2nd and 3rd edition of the Gaming academy, an initiative that aims to teach game development to the youth of Lebanon and the MENA region, through talks and workshops with industry professionals.

Projects

ML/Computer vision

Fine-tuned TrOCR on an Arabic handwriting dataset:

- *Fine-tuned a transformer-based OCR model (TrOCR) on the [Egyptian Handwriting Dataset](#) for Arabic handwritten word recognition*
- *Achieved 4.06% Character Error Rate (CER) and 16.41% Word Error Rate (WER) on the held-out test set*
- *Analyzed model limitations, observing strong word-level performance but reduced accuracy on line-level handwriting due line-level inputs caused by aspect ratio distortion during preprocessing, leading to loss of character-level visual fidelity*

Mobile development

- *Mobile application (Java, Android Studio) for event organization and booking: <https://github.com/karake22/finalmobileproject.git>*
- *Final year project: A mobile assistive application for Dyslexic and Dysgraphic students. Dysapp leverages OCR, speech-to-text and digital ink recognition to support and assist reading and writing with the aim to empower dyslexic students.*

<https://github.com/voidBagel/dysapp>

Demo:

<https://drive.google.com/drive/folders/1ZIT0SySP-FC5-FpyGrMjq6MCvI0S36ZU?usp=sharing>

Desktop app development

Python-AAC:

A desktop Augmented and Alternative Communication (AAC):

- *Built an interactive GUI using PyQt6*
- *Designed modular architecture separating UI, input logic, and speech synthesis components*
- *Implemented text-to-speech pipeline using gTTS*
- *Github: <https://github.com/voidBagel/python-aac>*

Web design

Prototype and design for an online thrifting platform:

- *Developed interactive product prototype in Figma, implementing navigation flows and button-level interactions*
- *Designed first-time user onboarding and login flow to streamline initial user experience*
- *Created microinteractions (e.g: Favorite heart button animation) to enhance user experience and engagement*
- *Collaborated on UI design decisions, contributing to layout, component consistency, usability*
- *Figma: [Again Prototype](#)*