Project Title: Mobile Application for Arabic Pronunciation Learning.

Project Description: Digitalization of language learning increases the accessibility to the education platforms while encouraging learners’ participation, and engagement. It is a means of supporting classroom activities in teaching/learning or self-improving spoken language proficiency. This project aims to design a mobile platform integrating state-of-the-art speech pronunciation correction systems, while holding learners’ engagement.

We plan to implement the platform for different devices for native and non-native Arabic language learners while working on features:

- Live feedbacks (from machine learning models)
- Interactive systems → possibly adding gamification to the application
- Combining different types of information: Speech, Lip shape features among others.

The project is divided into two focus:

1. Mobile application development
2. Backend API and simple model design. This includes integrating Machine learning model, Visualization and Analytic support

Duties/Activities: The students will be asked to work on one or more of the following:

- System and system components design and development
- Data management
- Mobile development
- User interface design

Required Skills: Programming experience in Python, Web programming (javascript related frameworks: NodeJs/NextJs/React,/VueJs)

Preferred Intern Academic Level: We take all levels: MSc, undergrad students enrolled in CS, ECE, and EE programs.

Learning Opportunities: You will learn about machine assisted spoken language learning while focusing on different components of the speech technology such as Automatic speech to text systems, and how to build systems to detect mispronunciation automatically.

Expected Team Size: 2-3 people

Mentors

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