

What can I translate for you?

Project Description:

Conversational agents have been the focus of many companies in the past few years, with the ultimate goal of having a machine that humans can converse with perfectly using natural speech. At QCRI, we have developed state-of-the-art Arabic speech recognition (ASR) and machine translation (MT) systems. The aim of this project is to bring these two domains together into a single entity, and build an agent which recognizes speech (Arabic or English) and speaks back its translation (English/Arabic). Such a robot can be deployed in multilingual scenario to aid doctor-patient communication or English language learning for Arabic speakers.

Duties/Activities:

The interns will learn

- i) To program a Raspberry Pi to perform speech recognition using ASR components built by QCRI
- ii) To translate text transcripts using MT components built by QCRI
- iii) To utilize off-the shelf text-to-speech software and plug it into the Raspberry Pi.

Required Skills:

Python (or knowledge about other scripting languages)

Comfortable in using off-the-shelf APIs

Basic knowledge about audio formats is preferable

Learning Opportunities:

Learn about Raspberry Pi

Learn about Neural Machine Translation Architecture

Learn about connecting different components to train end-to-end speech translation system

Expected Team Size: *it is preferable to have team projects*

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Mentors

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