What Eert will do

What Tae will do

Eert will draw an awesome diagram to visualize what's taeert-client is doing.

taeert-client (Android)

socket

taeert-server
(Flask python)

RESTful APIs
(POST)

Container 2

Container 1

(Face detection and recognition)

(Gender and age estimation)

Container 3
(Object detection and localization)

Container 4
(Emotion recognition and

next-utterance generation)

What is taeert-client doing exactly? (Eert will fill this part.)

The android client is designed to be as minimal as possible. Its main job is to make a connection with taeert-server and do whatever the server asks it to do. The things that the server can ask it to do are:

### 1. Take an image

The client takes an image and sends this to the server.

### 2. Speech recognition

The client records audio, performs ASR, and sends the parsed text to the server.

# 3. Text to speech

The server sends text to the client and tells the client to vocalize it.

### 4. Make a facial expression (experimental)

The server can ask the client to make a face (e.g. happy). We can start with something simple and then move on to full 3D

## What is taeert-server doing exactly?

taeert-server is the brain (knowledge representation and reasoning) of the bot. The KRR has nodes (entities) and edges (relations) that can be modified and reasoned over for various purposes.

Whenever needed, it also makes RESTful API calls to one or more services (i.e. container 1 to 4).

It's also a finite state machine. Based on the information it gets from the client, it moves between the states.

#### How can taeert-client connect to taeert-server?

Once taeert-server is on (either on a local machine or on the cloud), it starts the four docker containers and wait until the android client makes a connection to its address and port.

#### What does it do after the connection is made?

It'll ask the client to perform one of the four functions (i.e. take an image, speech recognition, text-to-speech, and facial expression). When it'll ask the client to do such things and what it'll do with the outputs depend on the state of the brain.