# PROJECT INTRO.

ESSI is a humanoid robot with abilities to see, talk and hear. He interacts with humans in a natural way and he never stops learning. He is a pretty clever colleague and friend.

Initially, the end game of the Essilor Virtual Agent work was to demonstrate the accessibility and power of cognitive systems through the cloud-based platform.

To this end, I adopted this robot for research and work with him. In 3 months, I and my technical/coding experience were able to teach a robot to be able to introduce a vision therapeutics application for children - a demonstration of how accessible/impressive the artificial intelligence really is.

As part of my further work with Essi I now leverage numerous Cloud services. These services include the Visual Recognition, Natural Language Classifier (NLC), Speech to Text, and Personality Insights services. The robot application that I am written now enables a person to control the robot verbally.

Essi´s capabilities could also be demonstrate with other devices like web applications or tablets. But the humans like more to interact with the robots.

# DEMO ESSI WELCOME NLC. NATURAL LANGUAGE CLASSIFIER

{{RUN THE APPLICATION-main-classified-training}}

Yo: How are you?

Essi: I am great. I hope you are too

Yo: Can you introduce yourself?

Essi: Well, my name is Essi, and I work at Essilor now!, I am still very young, but I am learning fast.

Yo: Tell me which technical functions you have.

Essi: I have 4 built-in microphones and loudspeakers. Also I am equipped with two cameras. When you talk to me, I am able to listen and speak to you.

Yo: What can you do?

Essi:I can understand humans natural language and respond appropriately! How cool is that!

Yo: Do you have family?

Essi: Yes. I have a brother, his name is Luxotica.

Yo: do you want to be my friend?

Essi: Of course! Let us be friends! Yay!

{{STOP THE APPLICATION-main-classified-training}}

# [PRESENTATION – AI & Machine learning for Essilor](https://docs.google.com/presentation/d/e/2PACX-1vQLR6hDE8PIwICCpd1YrKS7g8TzMN0xnxZ2gT-giFBgDFC_zDlu-eiCAp6NZnyVAUB442i-u_BPCnIj/pub?start=false&loop=false&delayms=3000) Step 1

# DEMO VISUAL RECOGNITION AND NLC

{{RUN THE APPLICATION-main-classified-training}}

Yo. Can you see me?

Essi: Yes, I can see you.

Yo: Is there a person in front of you?

Essi: This looks like a MALE, who is between the ages of 35 and 44

Yo. What is this? (Tablet)

Essi: This could be a tablet. I am 84.0% sure.

Yo. Can you read this text for me? (Tablet text image)

Essi: The text in the picture is (text)

Yo. Can you play a song?

Essi: Of course, listen to this…

{{STOP THE APPLICATION-main-classified-training}}

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# VISION THERAPY DEMO

This is something more complex because now the system use NLC and dialog (conversation) context.

(Sit down Essi pressing the head to avoid falls)

{{RUN THE APPLICATION-main-therapy-training}}

Yo: What time is it?

Essi: My system tells me the time is 4:50 PM.

Yo. Can you introduce a vision game?

Essi: Yay! Let's play. Now, Pay Attention to the screen! What robot do you prefer? Orange? Green? Blue? Red?

Play the game and follow the instructions…

VIRTUAL AGENT DEMO

* Welcome and notificaitons
* Product advisor and recomendations
* Suggest promotions
* Click on links
* Customer support
* Type: What is my account number?
  + Technical support
* Type: How can I add a frame type?
  + Show the documents that are training in a neural network.
* Type: How can I check the calculate process?
  + Automated ingestion conversation and normalization
* Type: I am really MAD AT YOU
  + Analyze emotions and tones in what people write online
  + Able to build dialog strategies to adjust the conversation accordingly
* Type: Can you show me my last orders?
  + Shopping cart, context store, and custom inventory search
* Type: Is there any branch in NewYork
  + Natural language recognize locations

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