

# Artificial Intelligence Projects

## ChatBot for Coursera Students



This project gets information from 500 JSON files of courses from Coursera and 109 PDF files about Customer Service Queries. With this source data, a Chatbot was created using IBM APIs to connect the Chatbot to the Data Collections. The data collections were processed and paired with meta-labels for keywords. By using these keywords, relevant data is retrieved as an answer.

This is a link for you, in case you want to test the Chatbot.

[Coursera Chatbot](#)

I deployed this Chatbot on Facebook and also used the APIs from IBM for Speech to Text and Text to Speech to give the Chatbot ears and voice. For this, I created a Facebook developer account.

## Machine Learning Project to recognize people wearing a Helmet

### Project Scenario

Imagine you are an AI Application Developer in one of the recently established oil and gas plants. Lately, the safety advisor has noticed an increase in head injuries among the plant's operators and workers. Luckily, the majority of the head injuries are minor, but it resulted in an increase in the health insurance premium by 10%. The only way to resolve the problem is to monitor and ensure that each person entering the plant is wearing a helmet and keeping them on. There are many cameras installed in the plant. So, the plant management and safety advisor asked you if you can use the cameras to create a computer vision solution that can flag anyone not wearing a helmet. You are excited because you know you can do this quite easily and quickly using IBM Watson Visual Recognition.

This project leverage the image recognition framework from IBM and the system was trained to recognize people using Helmets and people not using Helmets, having a Helmet in a picture without a person means someone is not wearing it, and having a person holding a helmet but not wearing it is not a case of someone wearing a helmet.

During a Pandemic this approach could be used to find people not wearing a face mask.

