**Conversation log**

Below is an example conversation log of the chatbot. The **image classification component log** is on page 3.

Loading chatbot-aiml.xml...done (0.01 seconds)

Kernel bootstrap completed in 0.04 seconds

Hi! I'm the dog breed information chatbot.

- Try asking me a question about a specifc breed.

- Ask me about groups of breeds(hounds, terriers, retrievers).

- Try and describe a breed for me to guess.

- Or ask me to tell you a dog related joke.

> Hello

Hello! How are you?

> I'm good

Nice!

Here the bot takes the word ‘hounds’ and searches through its database, using the similarity TF-IDF module to output all the dogs with the name hound.

> tell me about hounds

You can ask me about any of these dogs: American Leopard Hound, Afghan Hound, Basset Hound, Bavarian Mountain Scent Hound, Ibizan Hound, Pharaoh Hound

> tell me about coonhounds

You can ask me about any of these dogs: American English Coonhound, Black and Tan Coonhound, Bluetick Coonhound, Redbone Coonhound, Treeing Walker Coonhound

As you can see above, thanks to the TF-IDF module the bot is able to differntiate between hounds and coonhounds.

> please give me info on a bavarian mountain scent hound

The Bavarian Mountain Scent Hound is a purebred dog originally from Germany. These pups are loyal, intelligent, and reserved, which are some of the best qualities for a Hound dog breed.

The Bavarian Mountain Scent Hound goes by a few other names, including Bavarian Mountain Scenthound and Bayerischer Gebirgsschwei. Despite being a very rare breed, you can try and find these adorable pooches in local shelters or breed specific rescues, so remember to adopt! Don’t shop!

These reserved pups are very loyal to their pet parents and would fit great with families with children or larger households. They are a quiet breed but are very wary towards strangers or anyone theydon’t know approaching them or their humans. If you want a loyal pup who likes to be active and will love you unconditionally, the Bavarian Mountain Scent Hound may be the right dog for you!

Jokes are generated from the aiml and include context-based replies.

> Thanks. Can you tell me a joke?

You are welcome. What happens when it rains cats and dogs?

> I don't know, what happens?

You can step in a poodle!

> tell me about retrievers

You can ask me about any of these dogs: Chesapeake Bay Retriever, Curly-Coated Retriever, Flat-Coated Retriever, Golden Cocker Retriever, Golden Retriever, Labrador Retriever, Nova Scotia Duck Tolling Retriever

As can be seen the user recieves specific information on the questions asked about a breed. the result to the breed question has been parsed out of the data.

> is the chesapeake bay retriever a cross breed

A Chesapeake Bay Retriever is in fact a pure breed.

> how big is a chesapeake bay retriever?

A Chesapeake Bay Retriever is a large sized dog.

Thanks to the AIML, the chat below demonstrate the bot’s ability to get to the core of the user’s request, even though it does not remember having told a previous joke.

> tell me another joke

Why are dogs like phones?

> I dont know

Because they have collar IDs.

> haha

It seems I couldn't find what you were looking for. Would you like me to wikipekida search 'haha'?

> no thanks Here the bot manages to recongise the answer as non-positive

Right.

The conversation below demonstrates the bot’s ability to wiki search items

> can you please wiki search hounds

A hound is a type of dog that assists hunters by tracking or chasing the animal being hunted.

Hound may also refer to:

Dog, any dog of the subfamily Caninae

Learn more at https://en.wikipedia.org/wiki/Hound\_(disambiguation)

> what are the cross breeds of dogs

Here are all the cross breeds: Afador, American Pugabull, Bassador, Bernedoodle, Bocker, Boglen Terrier, Borador, Bordoodle, Boxerdoodle, Boxmatian, Bullboxer Pit, Bullmatian, Catahoula Bulldog, Cav-a-Jack, Cavachon, Cavador, Cavapoo, Cesky Terrier, Chabrador, Cheagle, Chi-Poo, Chilier, Chipin, Chiweenie, Chug, Chusky, Cockalier, Corgi Inu, Corgidor, Dachsador, Doberdor, Docker, Dorgi, Doxiepoo, German Sheprador, Goberian, Golden Cocker Retriever, Golden Mountain Dog, Goldendoodle, Gollie, Horgi,

Jack Chi, Kyi-Leo, Lab Pointer, Labernese, Labmaraner, Labrabull, Labradane, Labradoodle, Labrastaff, Labsky, Mastador, Morkie, Mutt, Pitsky, Pomapoo, Pomchi, Pomeagle, Poochon, Saint Berdoodle, Schnoodle, Shepsky, Shih-Poo, Shiranian, Shorkie, Valley Bulldog, Westiepoo, Whoodle, Yorkipoo

**Image classification component**

The imaging component of the chatbot takes pictures of dogs and attempts to predict the breeds of the dogs. A training accuracy of roughly 59% was achieved, this could have been improved if more training data/better resources/time was available.

An image can be given to the bot in many ways:

1. Providing the path to an image

> please predict the image C:\aData\English\_Setter\n02100735\_3.jpg

It should be a English setter

1. Providing an image url

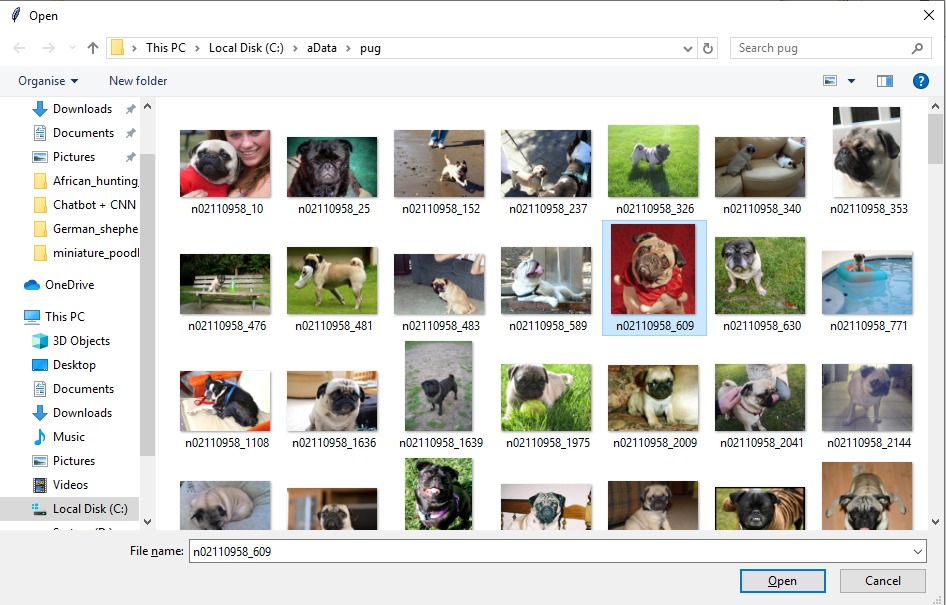
> predict https://upload.wikimedia.org/wikipedia/commons/thumb/8/88/Deutscher\_Schaeferhund\_Presley\_von\_Beluga.jpg/452px-Deutscher\_Schaeferhund\_Presley\_von\_Beluga.jpg

It should be a German shepherd

1. Using a file selector dialog

> Predict an image

\*File chooser dialog opens\*



It should be a Pug

Thanks to the imaging component making use of the AIML component of the chatbot, requests for image prediction can be input in many different formats, such as;

Please predict the image “x.jpg”

What image is “x”

Predict “x”

The bot also handles incorrect paths in a suitable manner

> Predict “C://This is/a/bad/path.jpg”

Sorry. I couldn’t find that image

> Predict www.test.jpg

Sorry. I couldn’t find that image