Azure Cognitive Service

Shoe Brand Image Classifier

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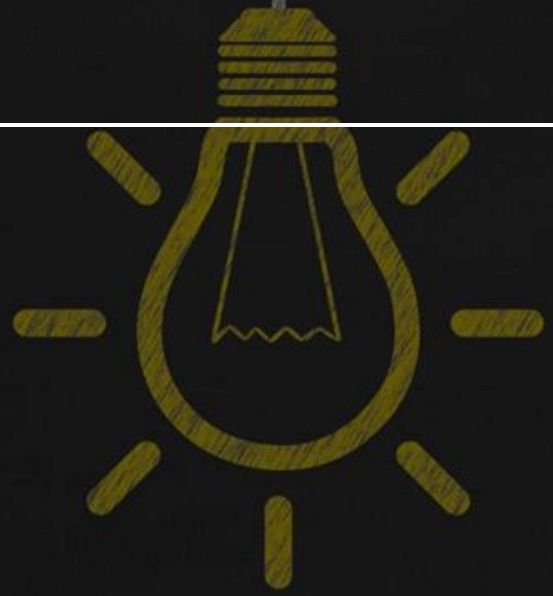
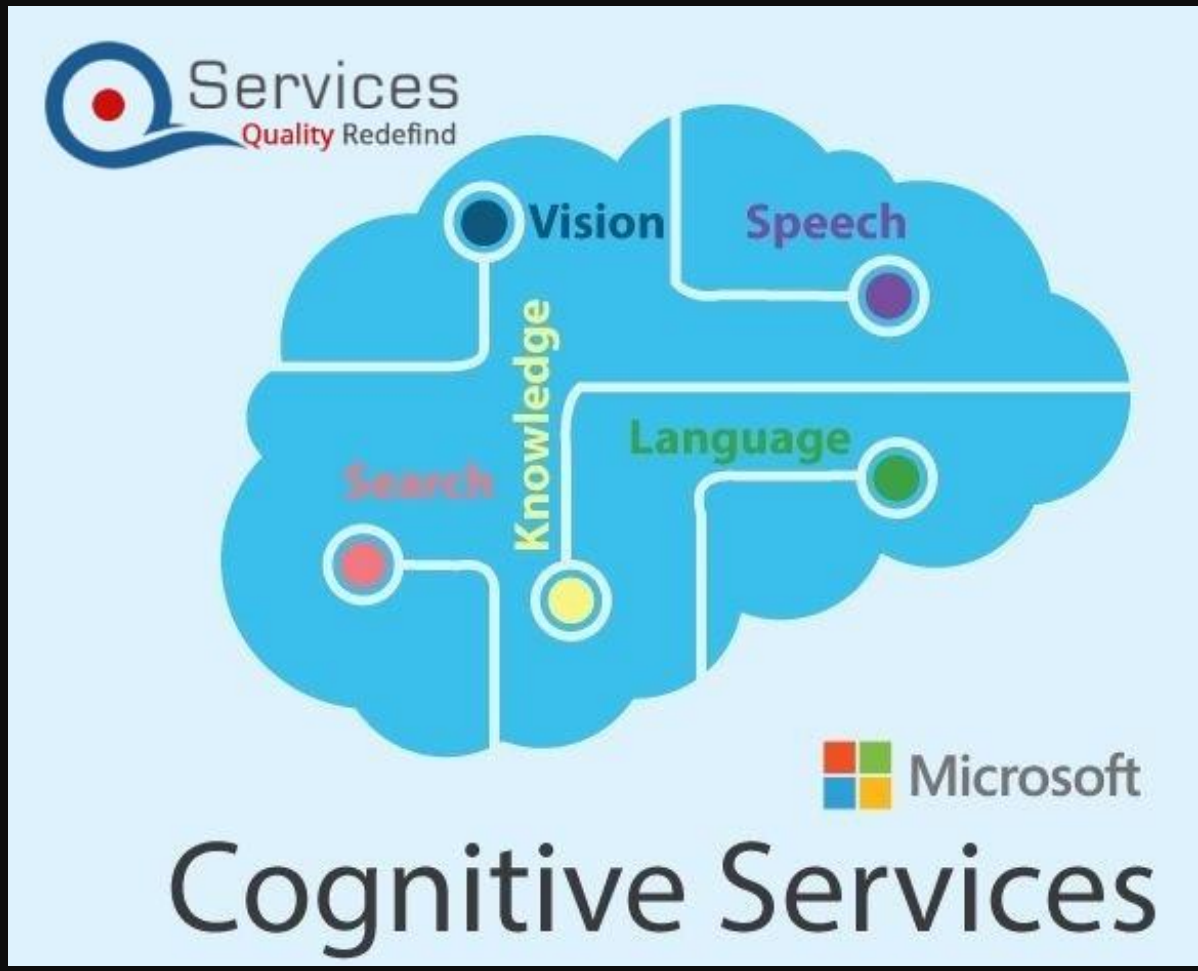


Microsoft Cognitive Services

- Azure Cognitive Services are cloud-based services which are a set of machine learning algorithms that Microsoft has developed to solve problems in the field of Artificial Intelligence (AI).

- The catalog of cognitive services that provide cognitive understanding is categorized into five main pillars:
  - Vision
  - Speech
  - Language
  - Decision
  - Search



Scope Definition - Shoe Brand Image Classifier

Nike | Adidas | Fila

This project scope is to train a supervised learning model to classify the images by using Azure cognitive service.

Steps Involved

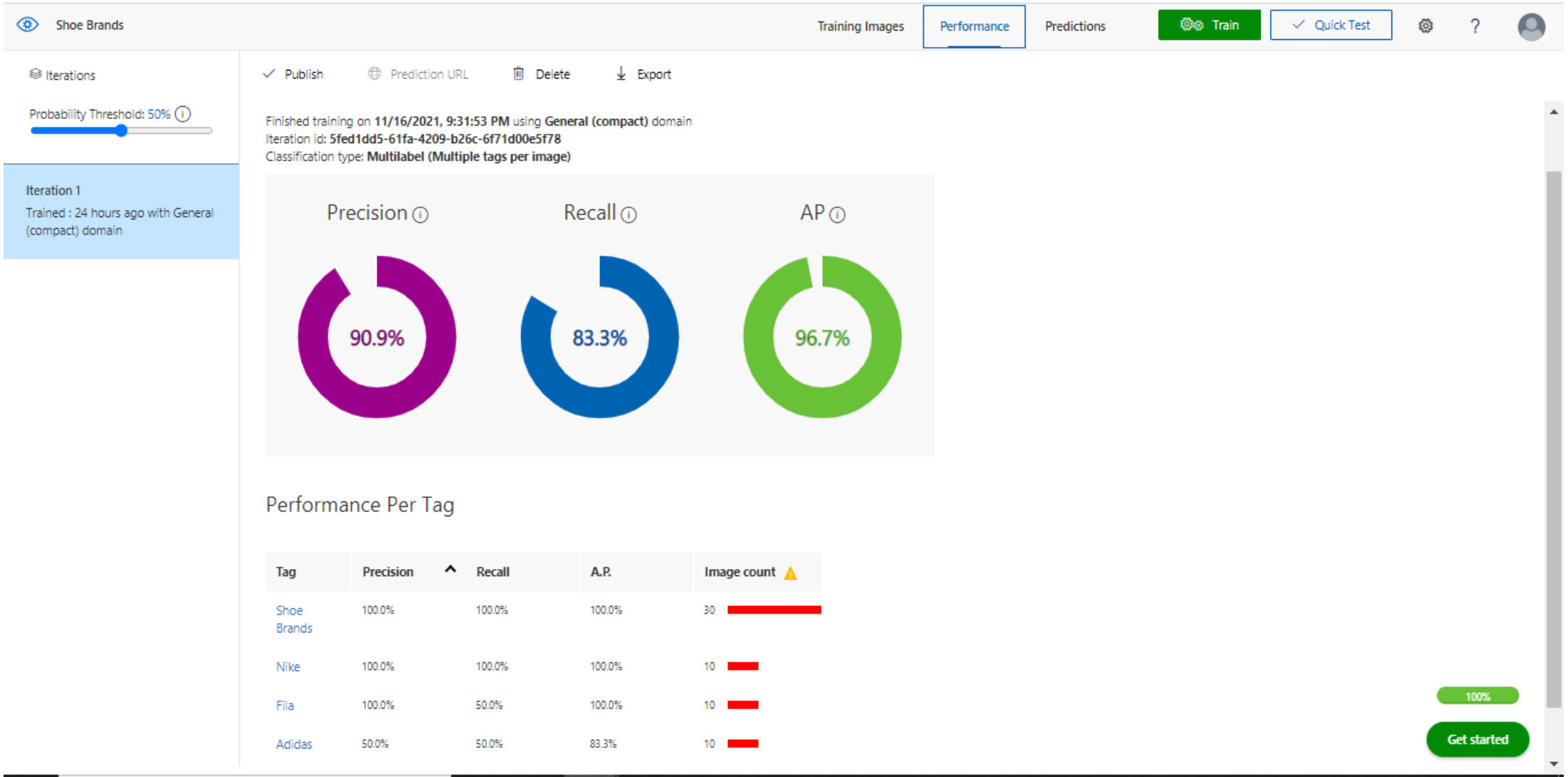
Selection of varies shoe brands

Image Collection

Train the model

Test the model to proof the accuracy

Trained Model



Quick Test Results - 1

Image Detail

My Tags

Add a tag and press enter

Predictions

Tag	Probability
Shoe Brands	100%
Fila	92.3%
Adidas	2.9%
Nike	1.1%

Image Detail

My Tags

Add a tag and press enter

Predictions

Tag	Probability
Shoe Brands	100%
Nike	91.8%
Fila	3.3%
Adidas	1.5%

Quick Test Results - 2

Image Detail

My Tags

Add a tag and press enter

Predictions

Tag	Probability
Shoe Brands	99.9%
Fila	44.9%
Nike	27.2%
Adidas	22.7%

Image Detail

My Tags

Add a tag and press enter

Predictions

Tag	Probability
Shoe Brands	99.9%
Adidas	26.6%
Fila	25.2%
Nike	19.8%

Demo

Conclusion

- Shoe brands and objects with the specific logo are identified perfectly.
- The custom vision is successfully tested by several quick tests.
- Image classification can be improved by increasing the variety and number of training data.

References

- https://docs.microsoft.com/en-us/azure/cognitive-services/what-are-cognitive-services
- https://www.customvision.ai/projects
- https://azure.microsoft.com/en-ca/blog/customvision-ai-code-free-automated-machine-learning-for-image-classification/
- https://www.wintellect.com/microsoft-custom-vision-creating-an-image-classification-model/

Thank you

https://youtu.be/T1bHDghVq1k