[Poster Describe Research or Software Development Project]

אוניברסיטת אריאל בשומרון

One Shot Learning For File Type Identification

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1.The goal of the project is creating a File-type Identification tool which can classify an object after seeing an object of the same class a few times or even once (One-Shot).

2. File-type Identification is the task of assigning a predefined label (the file type) to each instance (each file) based on observed data in the file. One-Shot File-type Identification is a method in which the classifier can assign every file it's predefined label after "seeing" the same type of file a few times or only once.

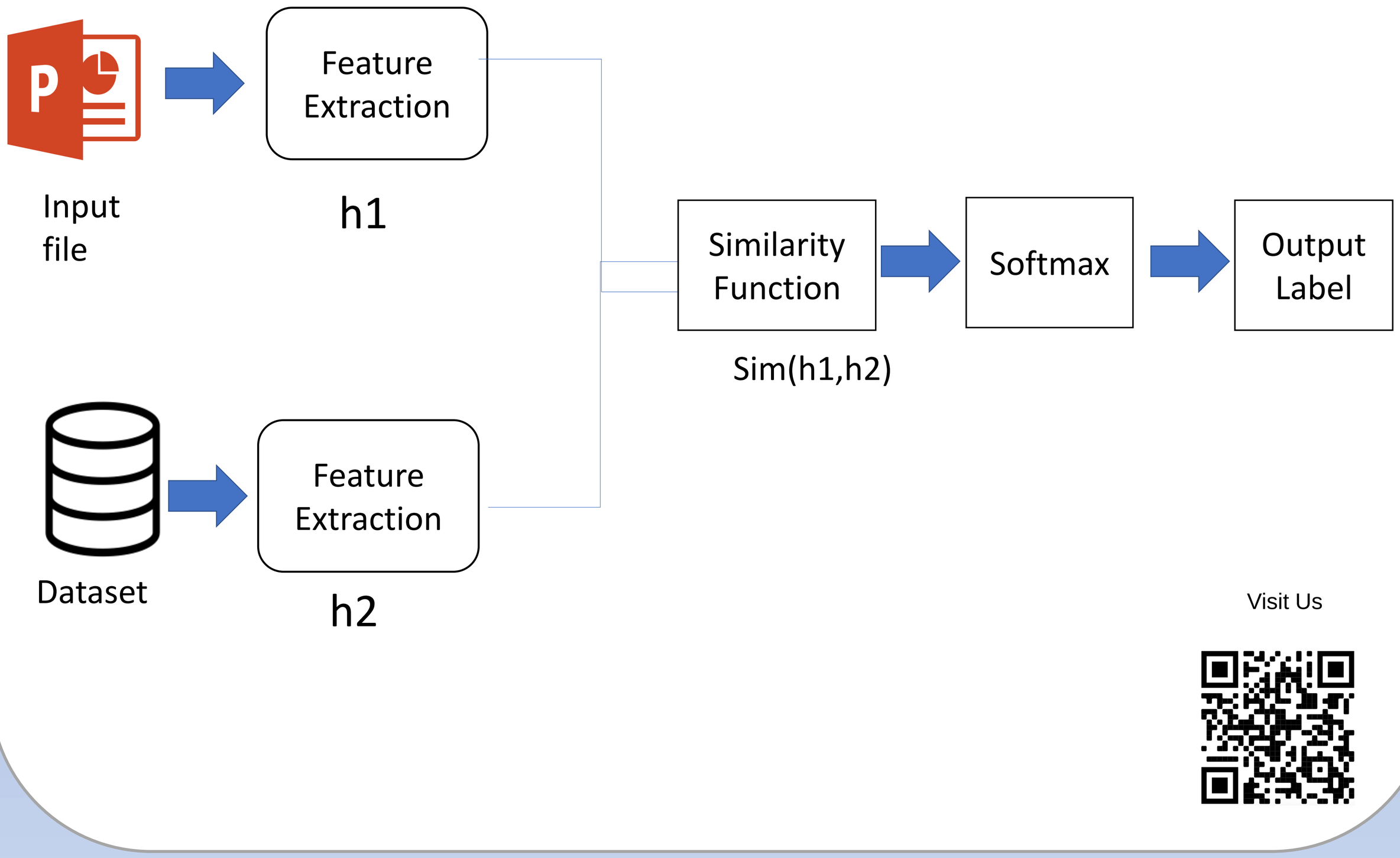
3. The classification tool uses a variety of algorithms and methods such as:

- Feature extraction
- SMM (Siamese neural network).
- Similarity function.
- Softmax function.

Because the tool is meant to be a one-shot detection classifier, the tool must be able to classify a query object after only seeing an object of the same class once or a few times, which limits the methods of classification, since there is no big data-set our model can be trained upon

4. The method of which we classify is quite straightforward:
Extraction of predefined features of the query objects and the support set objects.
Afterwards, classifying the objects according to similarity function results across the entire support set.
Lastly, determine the highest likelihood of the object according to the best results.

5. Schema of the classification tool approach:



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