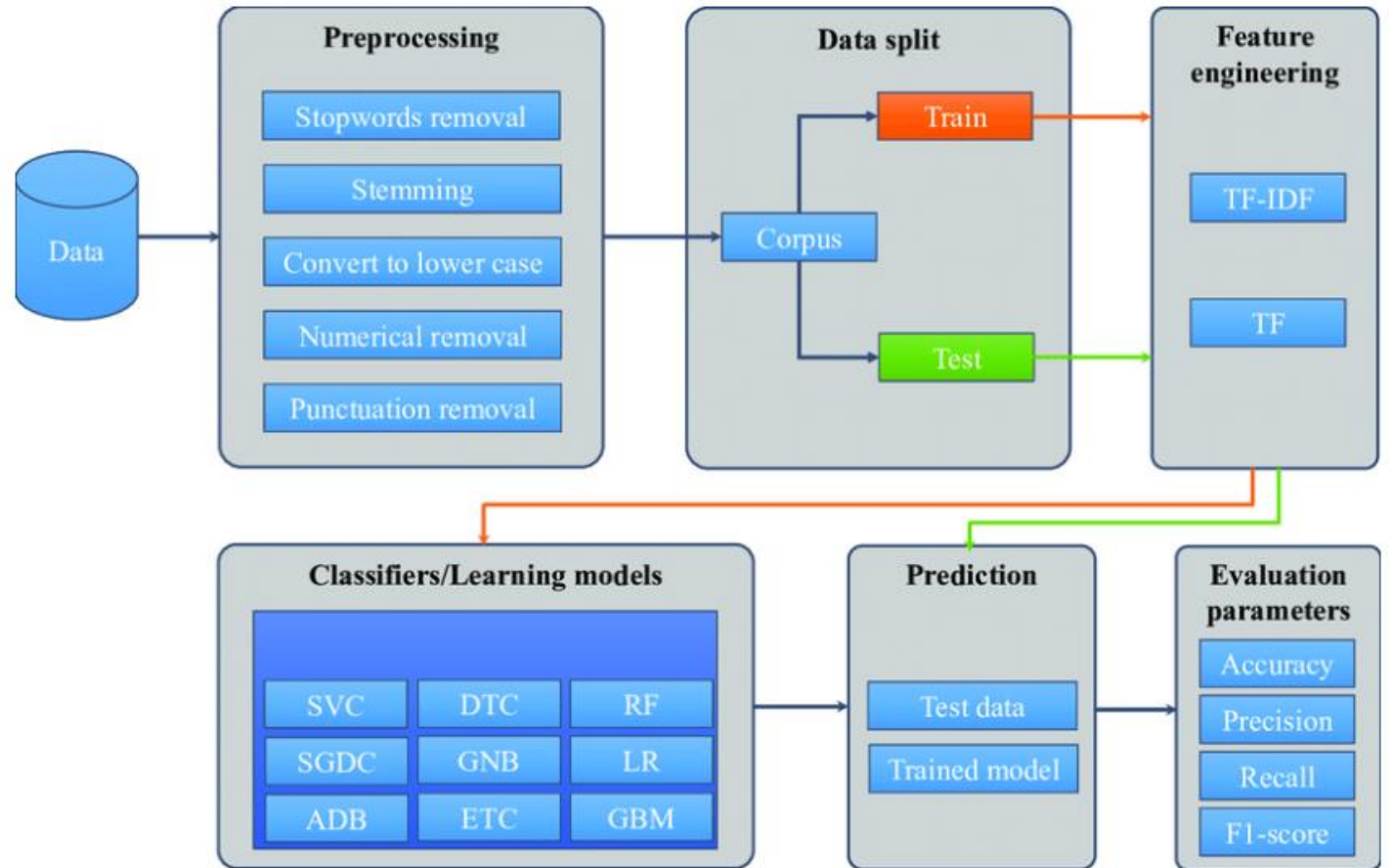



Proyectos



Tweet Classification





Prediction Problems

Titanic DataSet

Titanic DataSet

Prediction Problems

PassengerId	Survived	Pclass	Name	Sex	Age	SibSp
887	0	2	Montvila, Rev. Juozas	male	27.0	0
888	1	1	Graham, Miss. Margaret Edith	female	19.0	0
889	0	3	Johnston, Miss. Catherine Helen "Carrie"	female	NaN	1
890	1	1	Behr, Mr. Karl Howell	male	26.0	0
891	0	3	Dooley, Mr. Patrick	male	32.0	0



Prediction Problems

- Analyze by pivoting features

```
[4]: train_df[['Pclass', 'Survived']].groupby(['Pclass'], as_index=False).mean().sort_values(by='Survived', ascending=False)
```

```
[4]:
```

	Pclass	Survived
0	1	0.629630
1	2	0.472826
2	3	0.242363

```
[5]: train_df[['Sex', 'Survived']].groupby(['Sex'], as_index=False).mean().sort_values(by='Survived', ascending=False)
```

```
[5]:
```

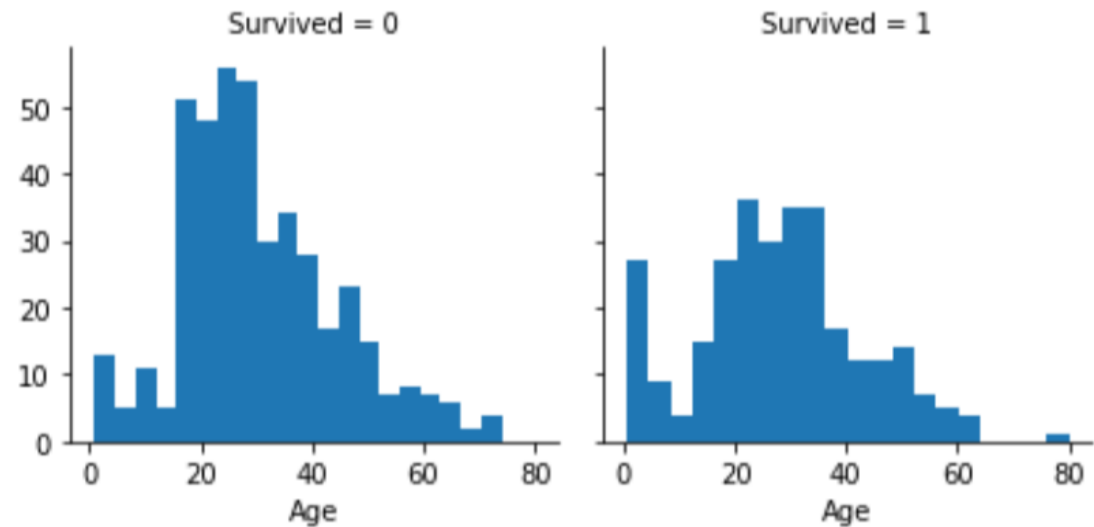
	Sex	Survived
0	female	0.742038
1	male	0.188908

Prediction Problems

- Analyze by visualizing data

```
[9]: g = sns.FacetGrid(train_df, col='Survived')  
g.map(plt.hist, 'Age', bins=20)
```

[9]: <seaborn.axisgrid.FacetGrid at 0x783b5081ddd8>



Prediction Problems

- Create new feature combining existing features

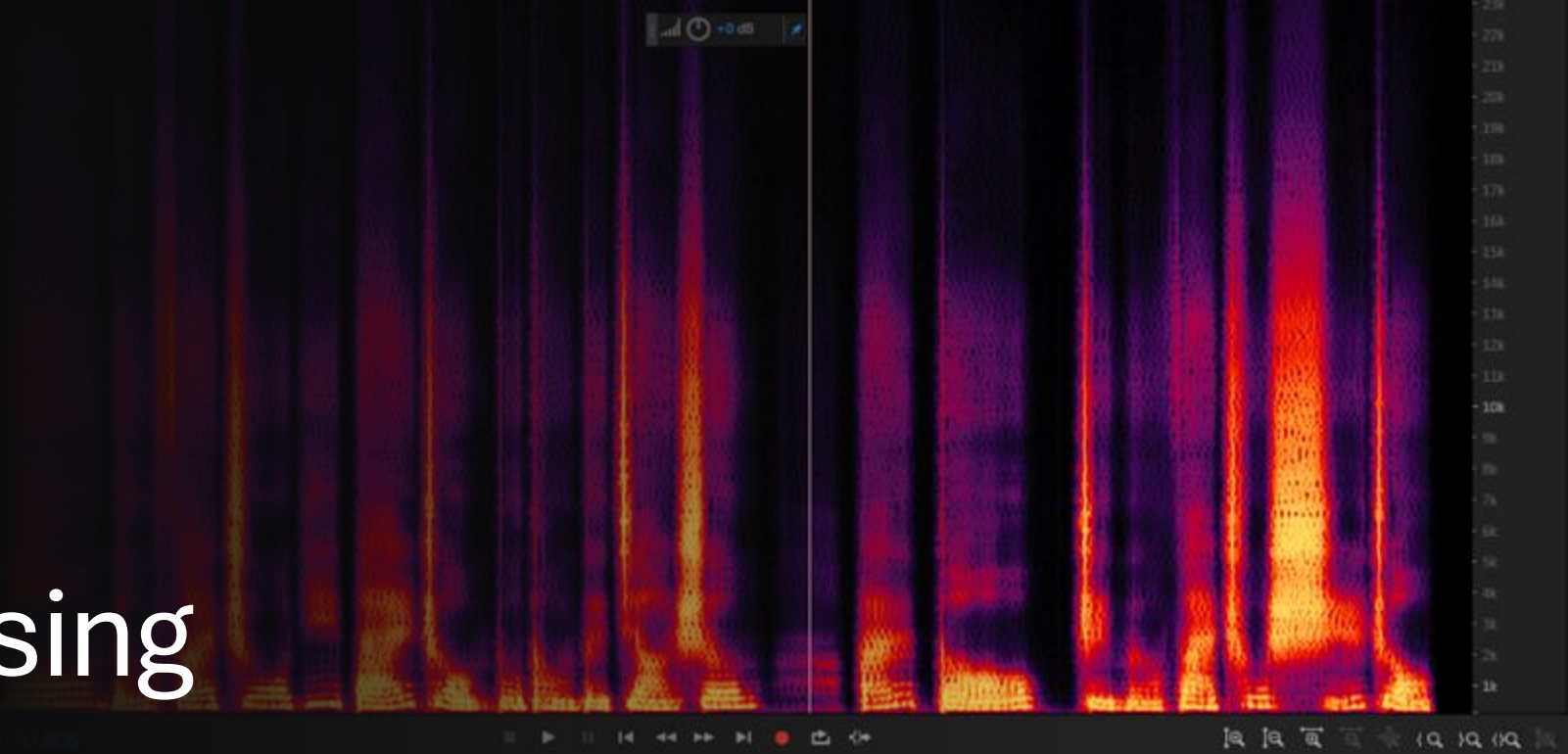
```
[13]: for dataset in combine:
        dataset['IsAlone'] = 0
        dataset.loc[dataset['FamilySize'] == 1, 'IsAlone'] = 1

train_df[['IsAlone', 'Survived']].groupby(['IsAlone'], as_index=False).mean()
```

```
[13]:
```

	IsAlone	Survived
0	0	0.505650
1	1	0.303538

Sound Processing



Frogs DataSet



Sound Processing



Spectrograms

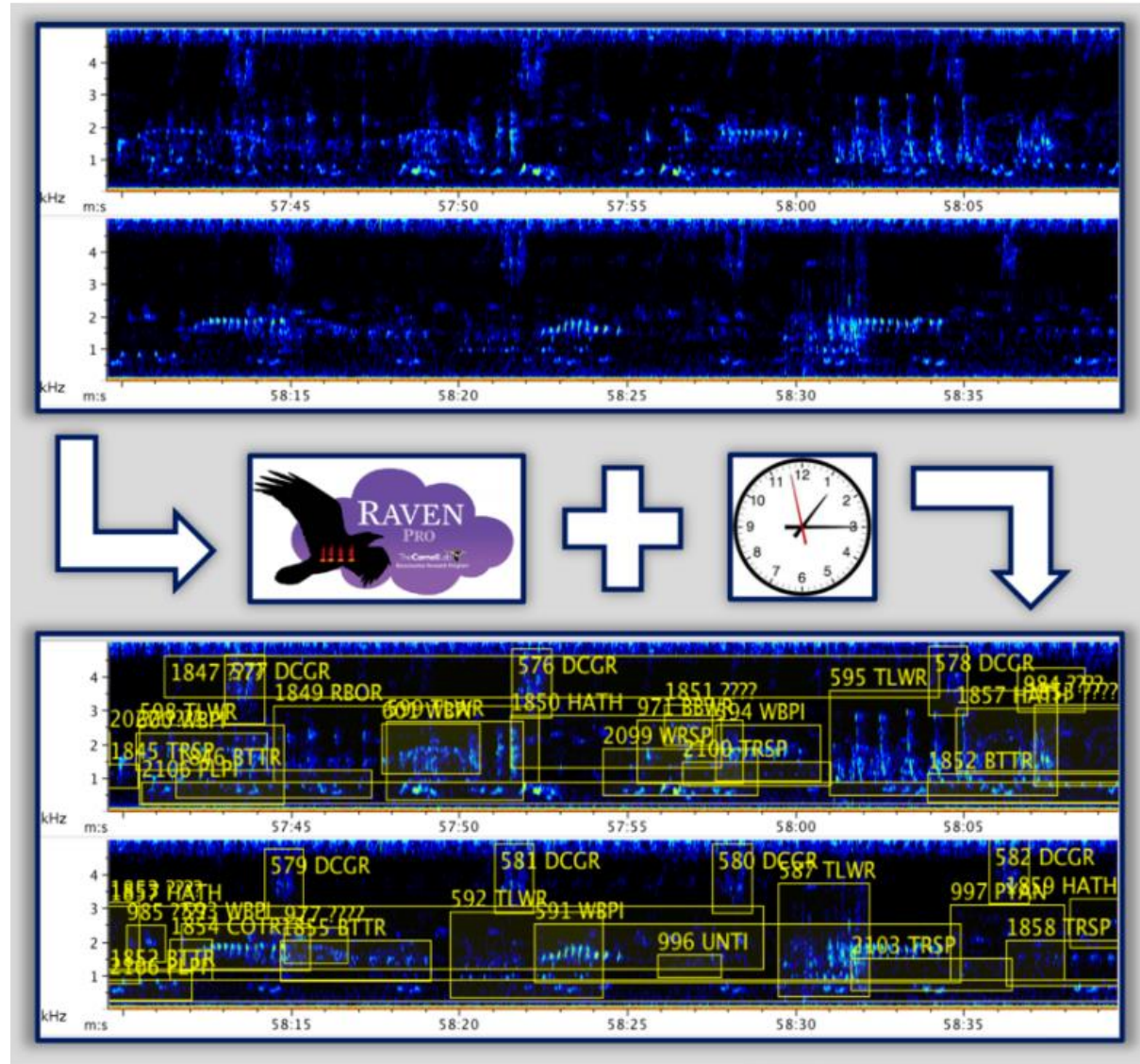


Embeddings

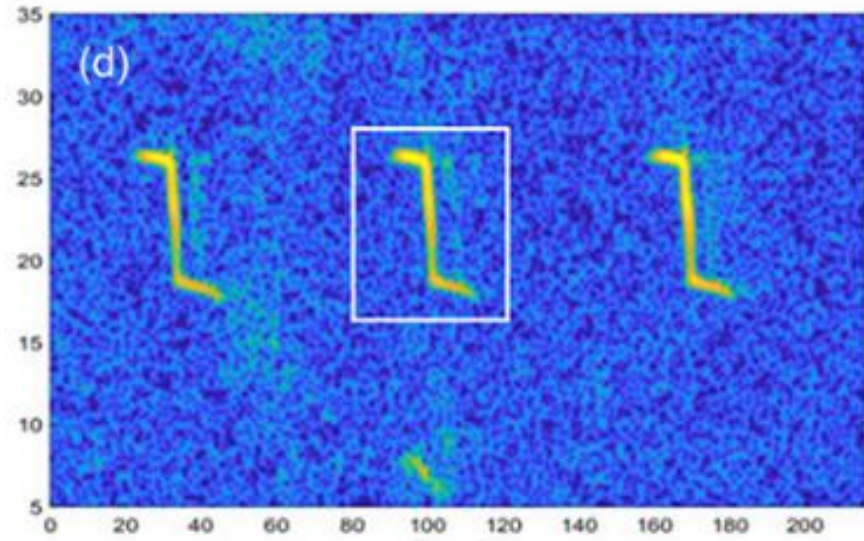
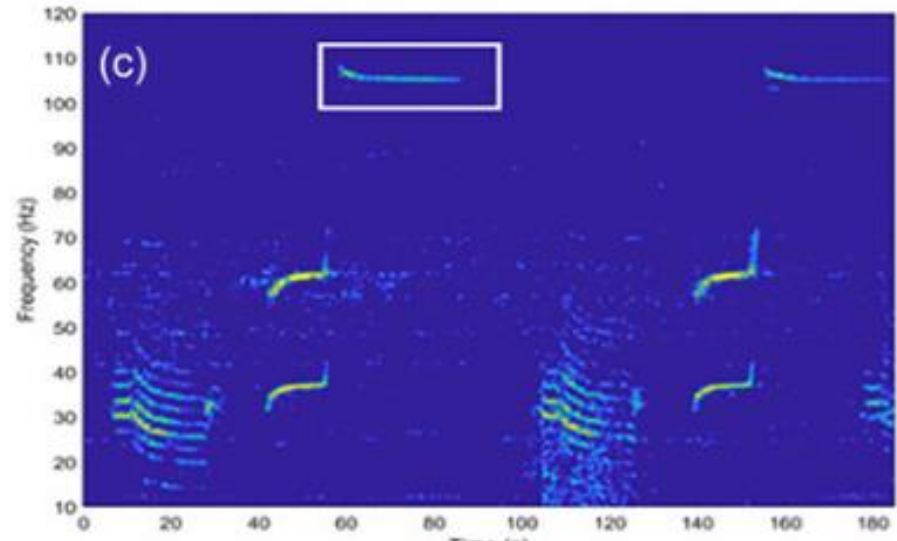
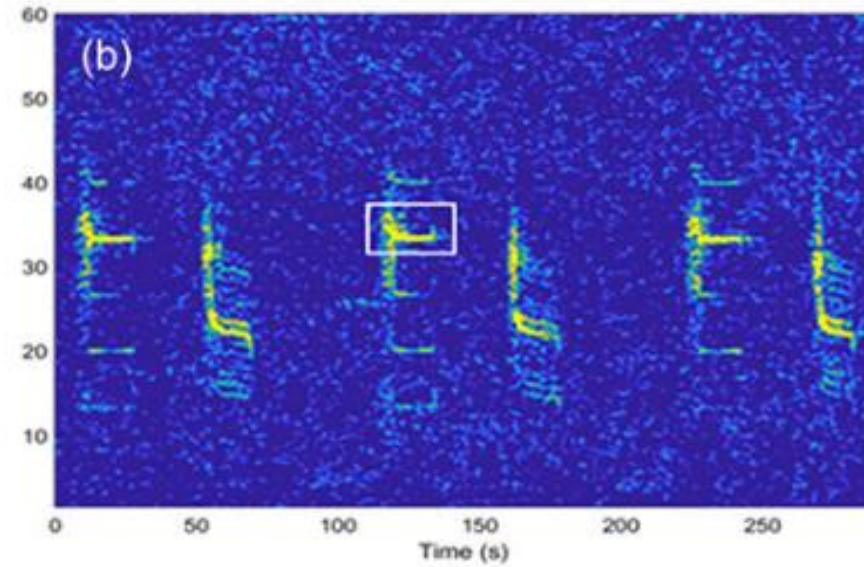
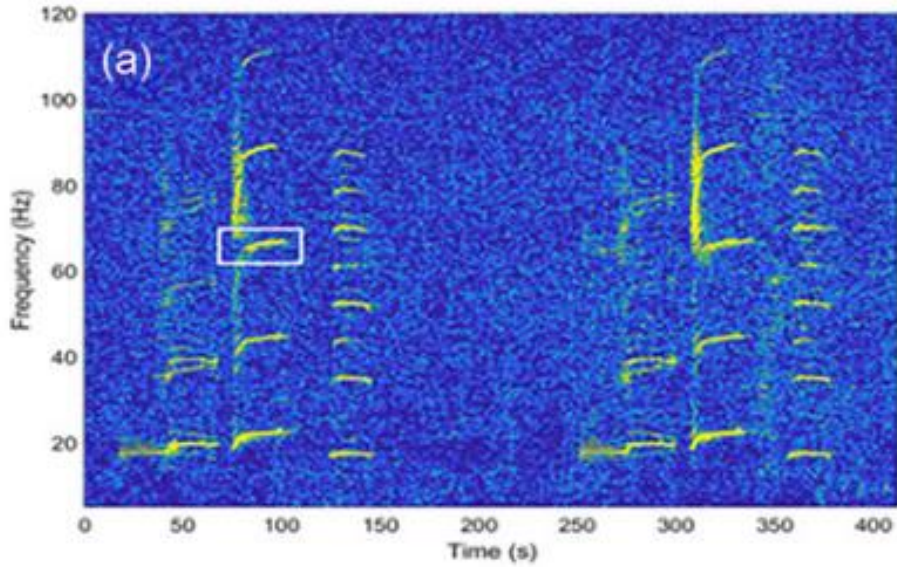
Spectrograms

- <https://github.com/calebj0seph/spectro>

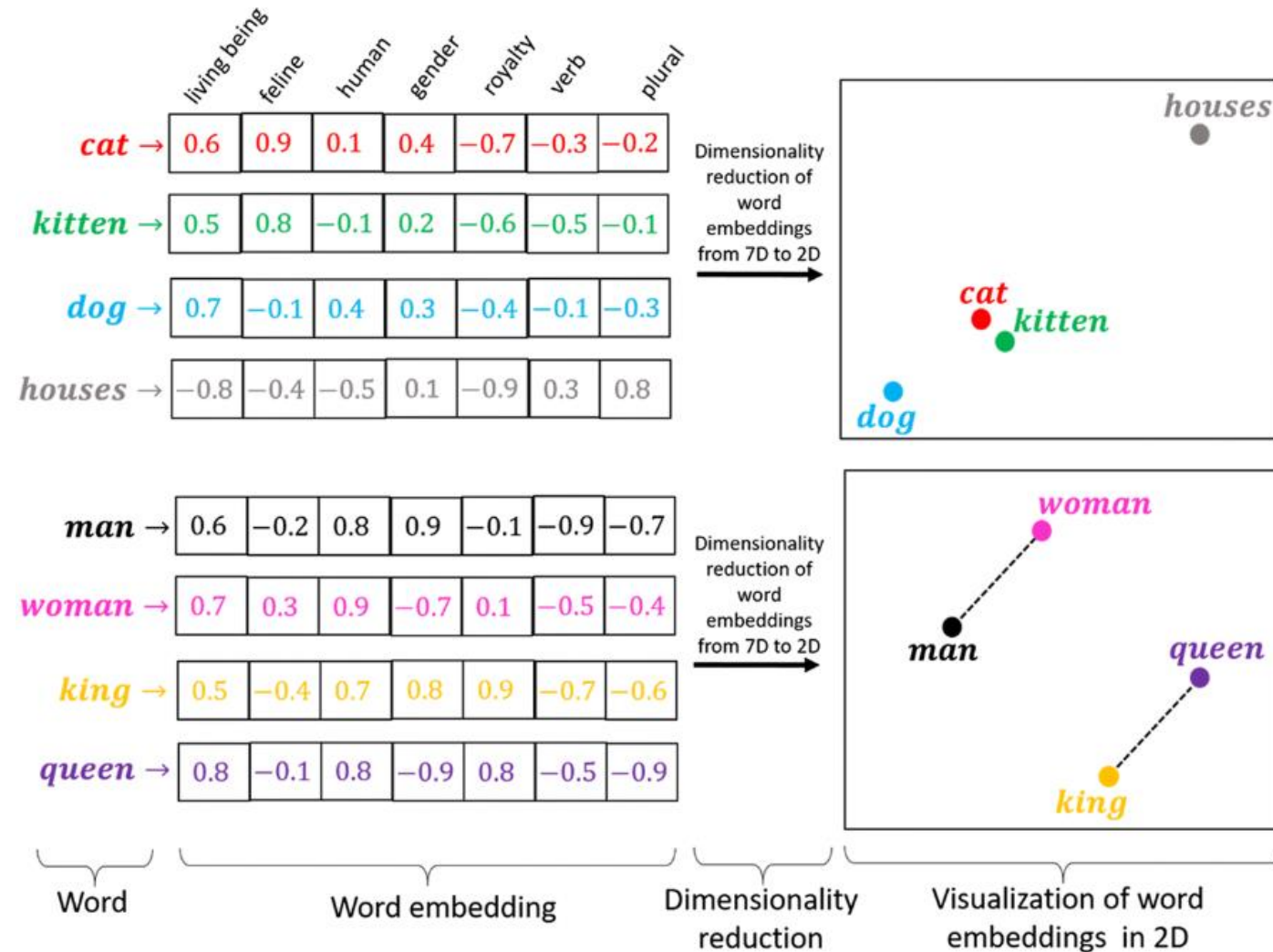
Spectrograms



Spectrograms



Embeddings

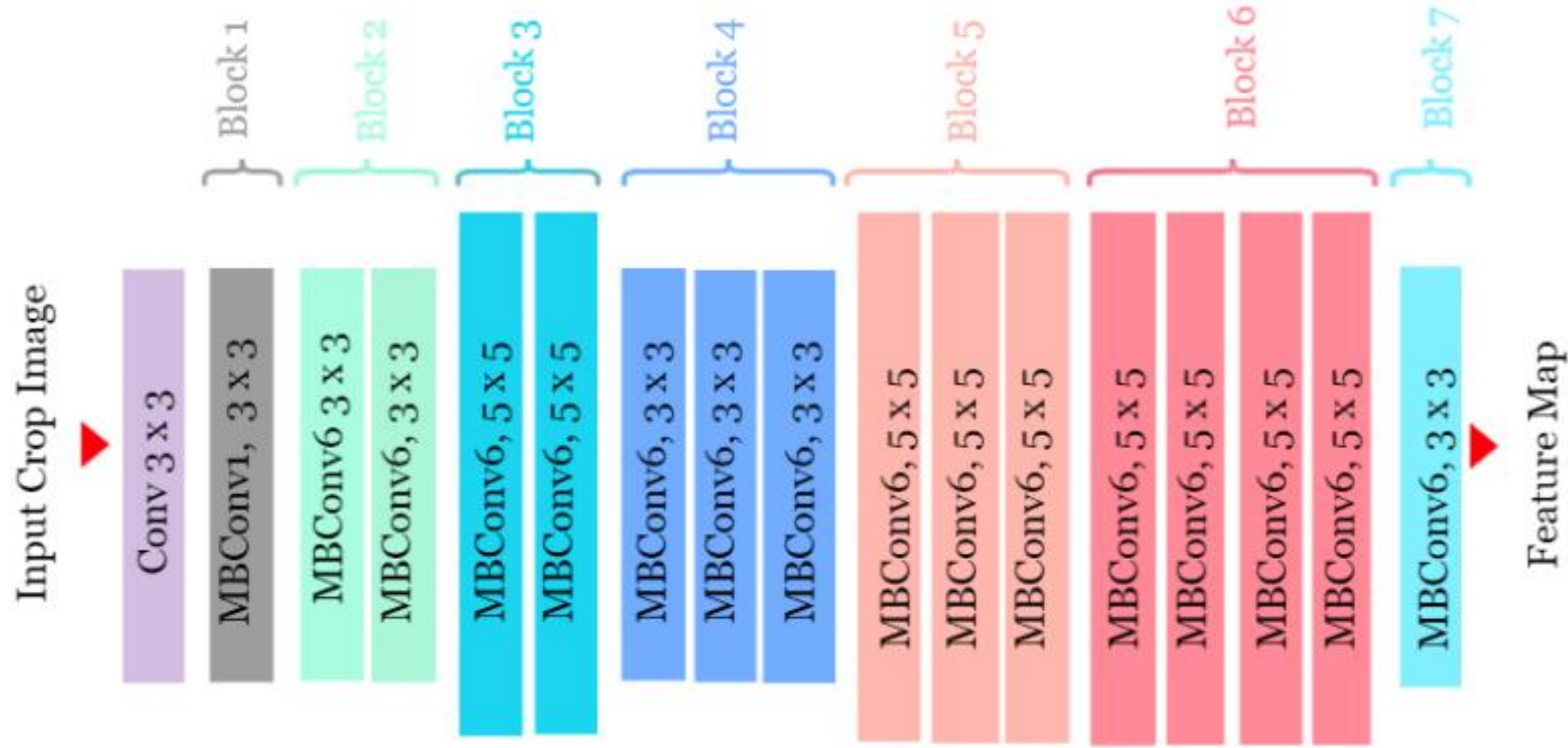


BirdClef

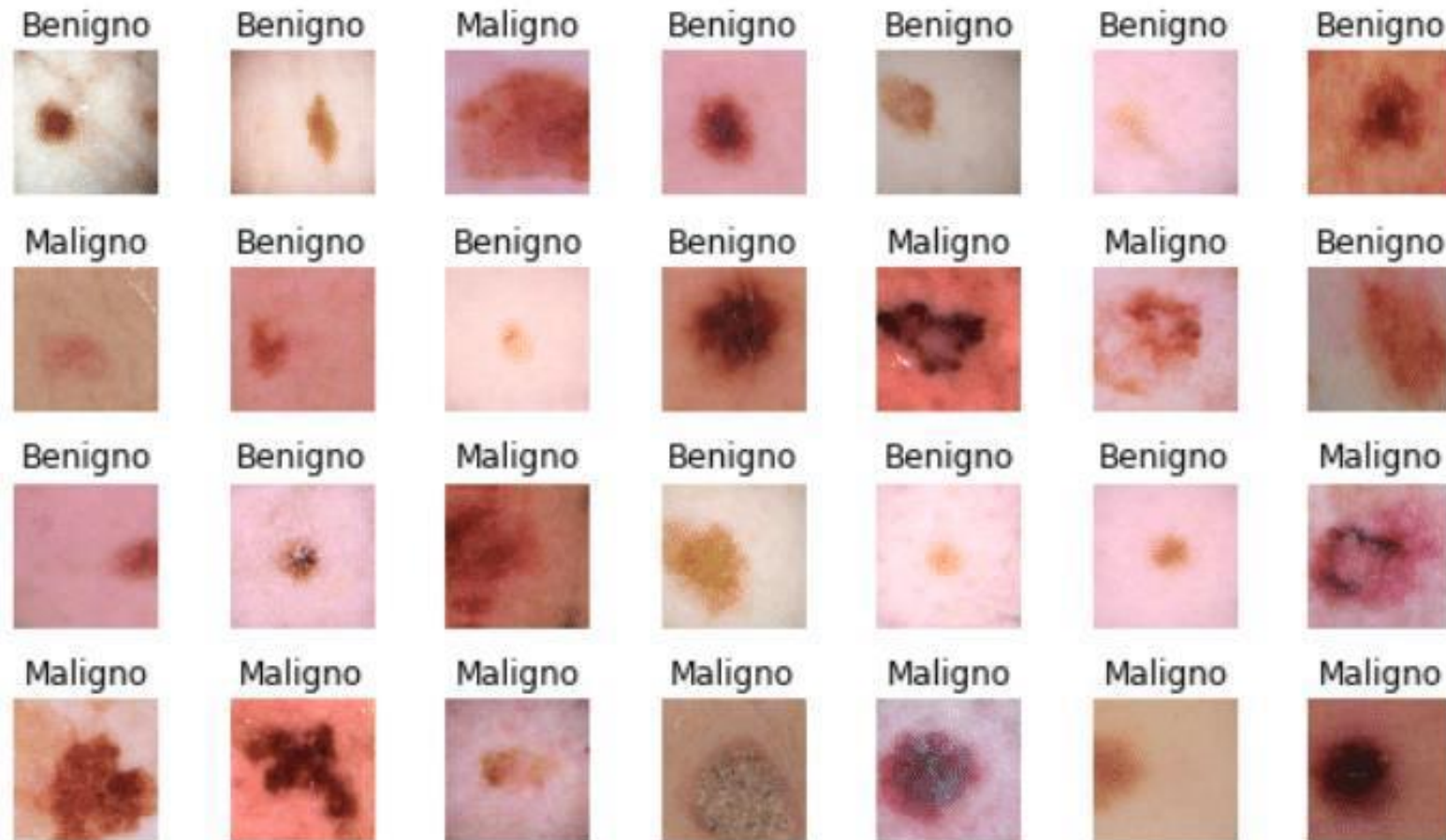
For this competition, you'll use your machine-learning skills to identify under-studied [Indian bird species](#) by sound. If successful, you'll help advance ongoing efforts to protect avian biodiversity in the Western Ghats, India, including those led by [V. V. Robin's Lab at IISER Tirupati](#).



EfficientNetB0



Proyecto Final de Machine Learning: Clasificación de Lesiones Cutáneas



Clasificación de música a partir de su género y el análisis de su letra

Proceso

- **Clasificación de Género:** Para cada canción en la playlist, se utiliza el modelo entrenado para predecir su género.
- **Transcripción de Letras:** Se utiliza el modelo Whisper de OpenAI para transcribir las letras de las canciones.
- **Embeddings de Texto:** Las letras se convierten en vectores numéricos (embeddings) usando un modelo multilingüe de Sentence Transformers.
- **Recomendación por estado de ánimo:** Dado un género y palabras clave que representan un estado de ánimo (por ejemplo, “heartbeat” para canciones emotivas), el código calcula la similitud entre las letras de las canciones y las palabras clave. Las canciones más similares se recomiendan como las que mejor coinciden con el estado de ánimo buscado.

Create your own GPT!!

