# **BERKAN YAPICI**

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#### **SKILLS**

Technical Skills: Python, GCP, TensorFlow, Pandas, Scikit-learn, XGBoost, Keras, Flask, Qlik

Sense, SQL, Seaborn, Matplotlib, Java, Pydicom, JavaScript

Languages: English IELTS C1, French DELF B2, Turkish Native

#### **WORK EXPERIENCE**

# **PRICER**

### Junior Data Scientist (GCP, Python, SQL, Qlik Sense, Pandas)

2023 Feb - 2024

- Implemented and optimized data processing workflows using Google Cloud Functions.
- Developed and maintained data pipelines leveraging Google BigQuery for efficient data storage and retrieval.
- Applied advanced statistical analysis and machine learning models to extract meaningful insights from large datasets.
- Visualized the findings with Qlik Sense dashboards.

#### **OMVISION**

# Co-Founder (Python, TensorFlow, Keras, Flask, JavaScript)

**Sep 2021 – Aug 2022** 

- Crafted data pipelines for preprocessing and feeding the neural networks.
- Further developed different types of network architectures for binary, multi-class and multi-label classification for intracranial hemorrhage.
- Constructed a web application using flask at backend and JavaScript at frontend.

# **PIMILAB**

# Intern (ITK-SNAP, Pydicom)

Jul 2021 (1 month)

- Worked on manual segmentation of MRI heart images.
- Learned about the data preparation phase for segmentation tasks in medical field.

#### **HAVELSAN**

# Intern (Scikit-learn, Pandas)

Jul 2020 (1 month)

- Discovered Bosch production line performance dataset with pandas.
- Applied different imputation techniques using scikit learn.
- Observed the results of different imputation techniques on model's performance.

### **EDUCATION**

#### KTH Royal Institute of Technology

**2022** – ongoing

MSc. Machine Learning

**Istanbul Technical University (GPA 3.42)** 

2016 - 2021

**Electronics and Communication Engineering** 

### **AWARDS & GRANTS**

#### **TUBITAK BIGG 2021**

Won the Individual Young Entrepreneur program BIGG that aims to boost innovation-based technological infrastructure in Turkey. Supported for early incubation of the tech startup OMVISION that focuses on the application of deep learning in healthcare industry.

### **PROJECTS**

# Intracranial Hemorrhage Detection (Python, TensorFlow, Keras, Pydicom)

- Implemented preprocessing functions for medical images using pydicom and numpy.
- Created different CNN architectures with TensorFlow to detect hemorrhage.
- Compared the performances of SOTA CNN architectures like VGG16, ResNet50 and Xception.

# Camera Model Detection (Python, TensorFlow, Keras)

- Produced a deep learning solution to detect the camera model from the given photo.
- Built RemNet CNN using TensorFlow for camera model identification.
- Observed the effect of regularization, accuracy increased to %85 from %80.

# Mood Prediction from EEG Signals (Python, XGBoost, Scikit-learn)

- Collected EEG signals produced by a commercial muse headband.
- Trained ensemble methods to classify 3 moods, negative, positive and neutral.
- Model deployed to arduino to predict the mood.

### Music Genre Classification (Python, Librosa, Scikit-learn, XGBoost, Matplotlib)

- Worked on GTZAN genre collection to classify music genres from 1000 audio tracks each 30 seconds long.
- Used librosa to create spectrograms and get features from audio files.
- Trained different machine learning models and compared their performances.

### Churn Turknet Dataset (Python, Pandas, Scikit-learn, XGBoost)

- Detected customers, who will likely cancel their membership at the end of the month.
- Implemented pipelines for preprocessing and training with scikit-learn for imbalanced churn dataset.
- Evaluated confusion matrix and F1 scores of the best performing models.