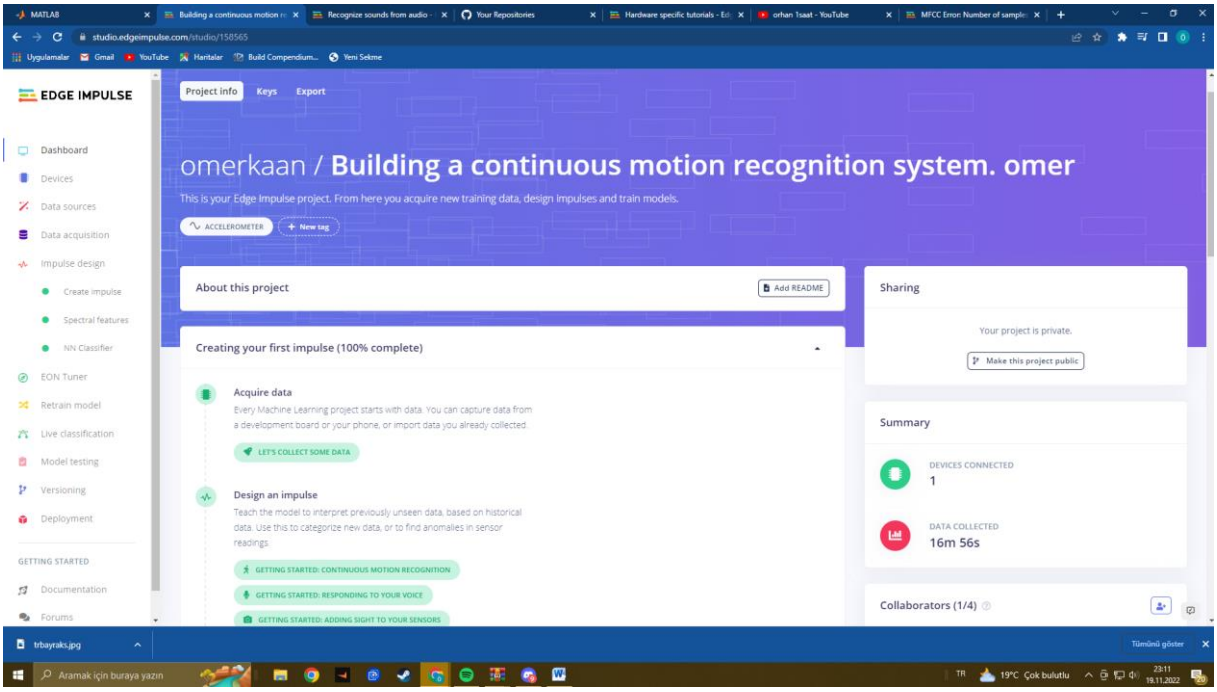
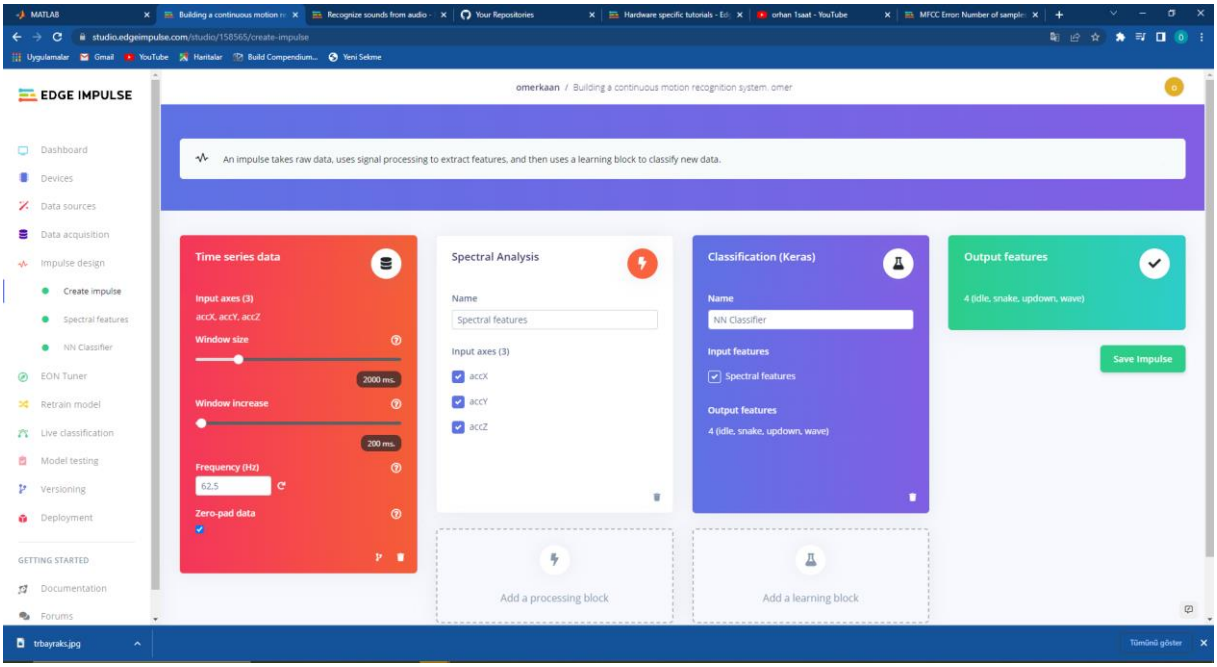
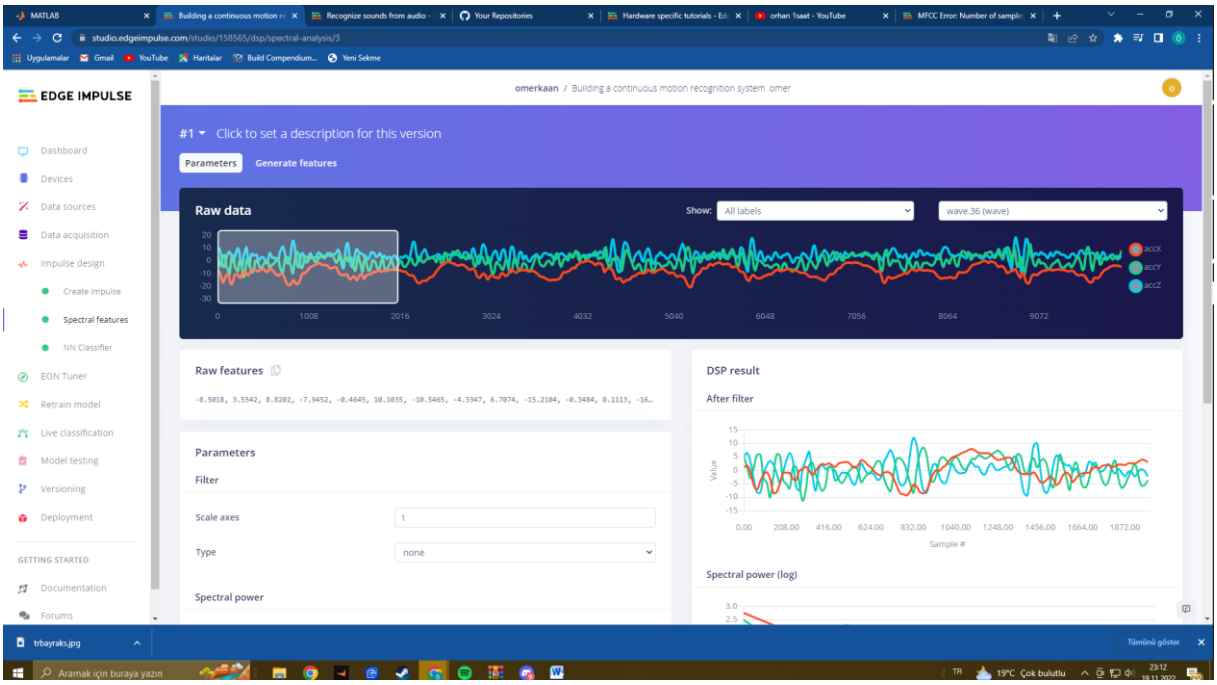
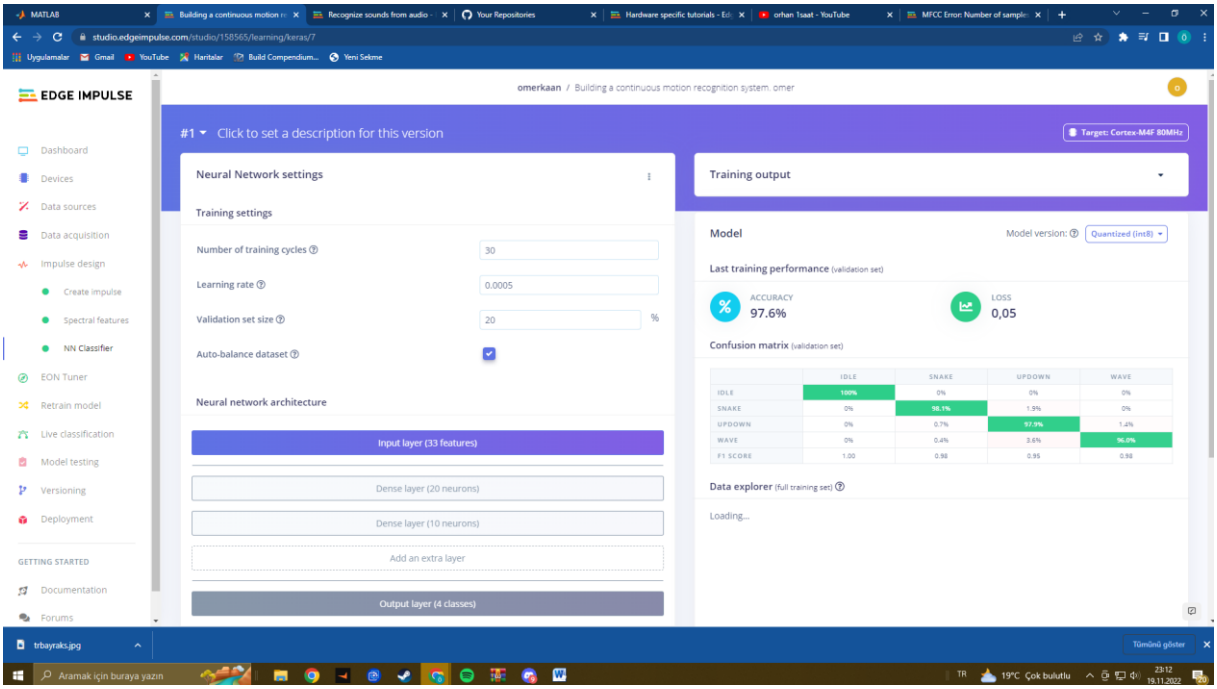
1-)

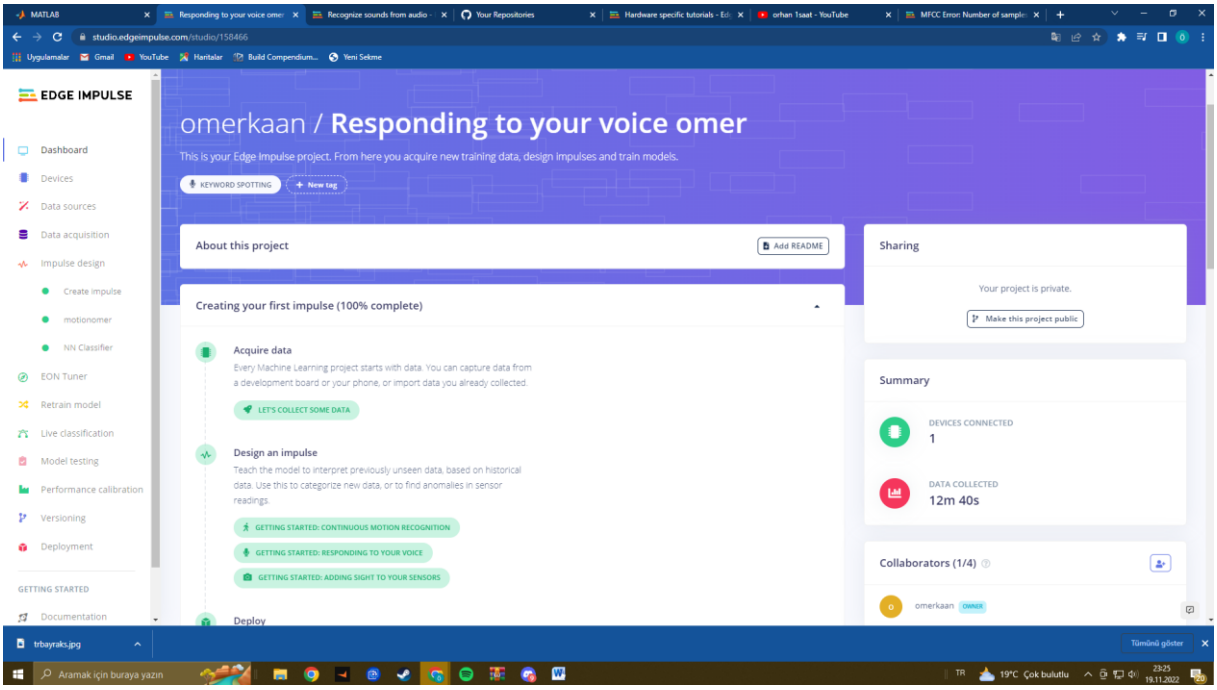

EDGE IMPULSE
Project info
Keys
Export
omerkaan / Building a continuous motion recognition system. omer
This is your Edge Impulse project. From here you acquire new training data, design impulses and train models.
ACCELEROMETER
+ New tag
About this project
Add README
Sharing
Your project is private.
Make this project public
Creating your first impulse (100% complete)
Acquire data
Every Machine Learning project starts with data. You can capture data from a development board or your phone, or import data you already collected.
LET'S COLLECT SOME DATA
Design an impulse
Teach the model to interpret previously unseen data, based on historical data. Use this to categorize new data, or to find anomalies in sensor readings.
GETTING STARTED: CONTINUOUS MOTION RECOGNITION
GETTING STARTED: RESPONDING TO YOUR VOICE
GETTING STARTED: ADDING SIGHT TO YOUR SENSORS
Summary
DEVICES CONNECTED
1
DATA COLLECTED
16m 56s
Collaborators (1/4)
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
Spectral features
NN Classifier
EON Tuner
Retrain model
Live classification
Model testing
Versioning
Deployment
GETTING STARTED
Documentation
Forums


EDGE IMPULSE
omerkaan / Building a continuous motion recognition system. omer
An impulse takes raw data, uses signal processing to extract features, and then uses a learning block to classify new data.
Time series data
Input axes (3)
accX, accY, accZ
Window size
2000 ms.
Window increase
200 ms.
Frequency (Hz)
62.5
Zero-pad data
Spectral Analysis
Name
Spectral features
Input axes (3)
accX
accY
accZ
Classification (Keras)
Name
NN Classifier
Input features
Spectral features
Output features
4 (idle, snake, updown, wave)
Output features
4 (idle, snake, updown, wave)
Save Impulse
Add a processing block
Add a learning block
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
Spectral features
NN Classifier
EON Tuner
Retrain model
Live classification
Model testing
Versioning
Deployment
GETTING STARTED
Documentation
Forums

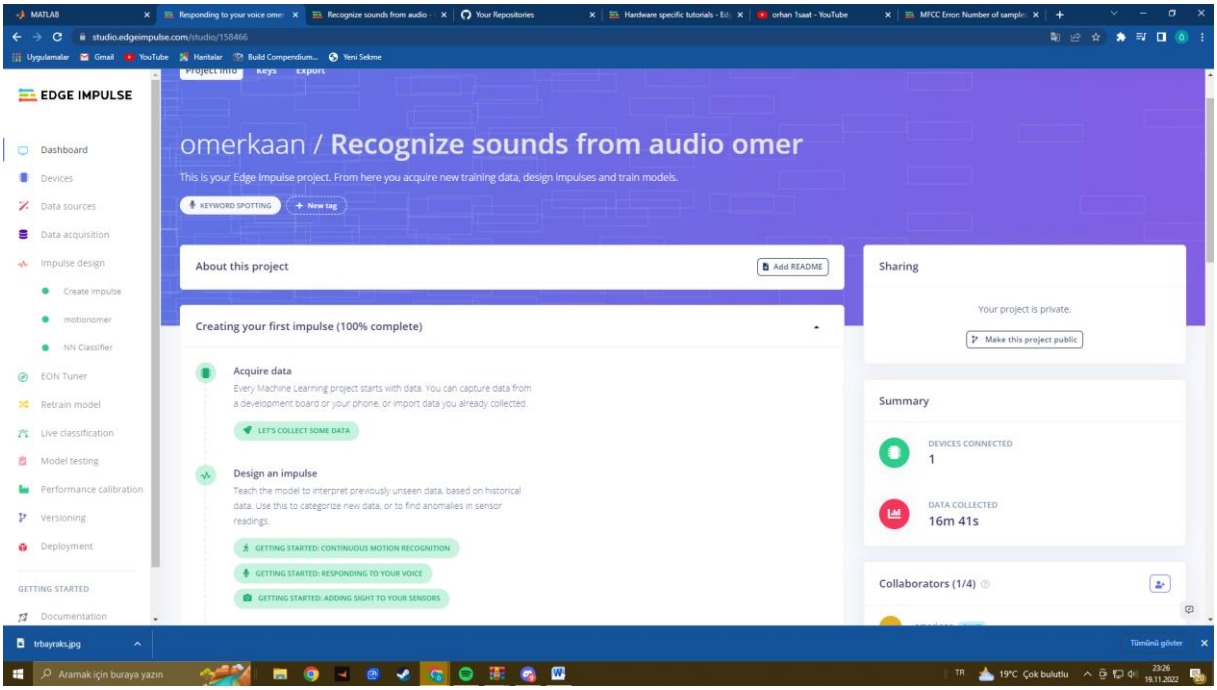

EDGE IMPULSE
omerkaan / Building a continuous motion recognition system. omer
#1 Click to set a description for this version
Parameters
Generate features
Raw data
Show: All labels
wave.36 (wave)
accX
accY
accZ
Raw features
DSP result
After filter
Parameters
Filter
Scale axes
Type
none
Spectral power
Spectral power (log)
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
Spectral features
NN Classifier
EON Tuner
Retrain model
Live classification
Model testing
Versioning
Deployment
GETTING STARTED
Documentation
Forums


EDGE IMPULSE
omerkaan / Building a continuous motion recognition system. omer
#1 Click to set a description for this version
Target: Cortex-M4F 80MHz
Neural Network settings
Training settings
Number of training cycles
30
Learning rate
0.0005
Validation set size
20
Auto-balance dataset
Neural network architecture
Input layer (33 features)
Dense layer (20 neurons)
Dense layer (10 neurons)
Add an extra layer
Output layer (4 classes)
Training output
Model
Model version:
Quantized (int8)
Last training performance (validation set)
ACCURACY
97.6%
LOSS
0,05
Confusion matrix (validation set)
IDLE
SNAKE
UPDOWN
WAVE
F1 SCORE
Data explorer (full training set)
Loading...
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
Spectral features
NN Classifier
EON Tuner
Retrain model
Live classification
Model testing
Versioning
Deployment
GETTING STARTED
Documentation
Forums

2-)


EDGE IMPULSE
omerkaan / Responding to your voice omer
This is your Edge Impulse project. From here you acquire new training data, design impulses and train models.
KEYWORD SPOTTING
+ New tag
About this project
Add README
Creating your first impulse (100% complete)
Acquire data
Every Machine Learning project starts with data. You can capture data from a development board or your phone, or import data you already collected.
LET'S COLLECT SOME DATA
Design an impulse
Teach the model to interpret previously unseen data, based on historical data. Use this to categorize new data, or to find anomalies in sensor readings.
GETTING STARTED: CONTINUOUS MOTION RECOGNITION
GETTING STARTED: RESPONDING TO YOUR VOICE
GETTING STARTED: ADDING SIGHT TO YOUR SENSORS
Deploy
Sharing
Your project is private.
Make this project public
Summary
DEVICES CONNECTED
1
DATA COLLECTED
12m 40s
Collaborators (1/4)
omerkaan
OWNER
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
motionomer
NN Classifier
EON Tuner
Retrain model
Live classification
Model testing
Performance calibration
Versioning
Deployment
GETTING STARTED
Documentation

3-)


EDGE IMPULSE
omerkaan / Recognize sounds from audio omer
This is your Edge Impulse project. From here you acquire new training data, design impulses and train models.
KEYWORD SPOTTING
+ New tag
About this project
Add README
Creating your first impulse (100% complete)
Acquire data
Every Machine Learning project starts with data. You can capture data from a development board or your phone, or import data you already collected.
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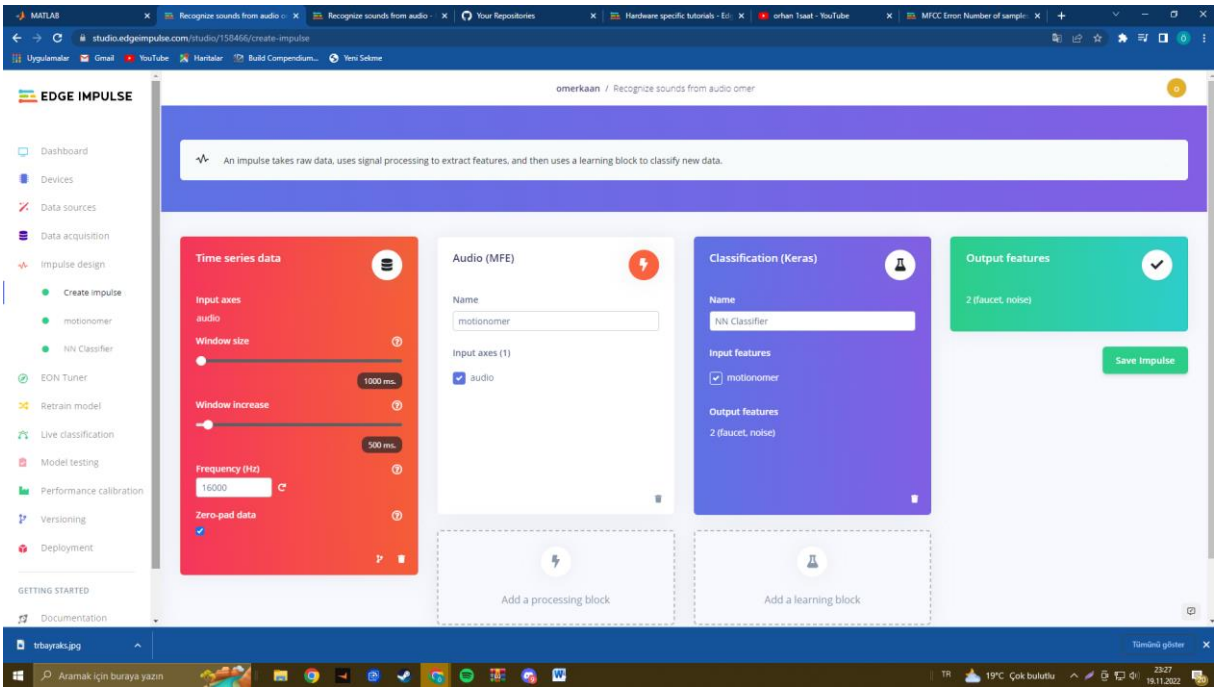
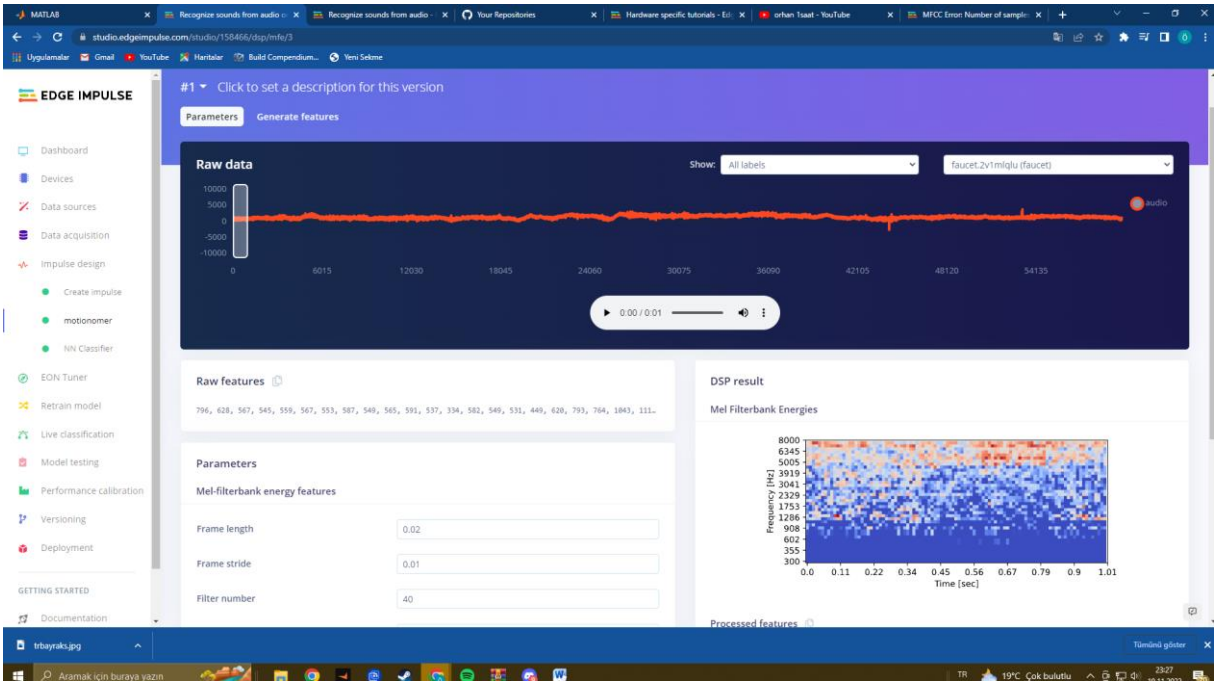
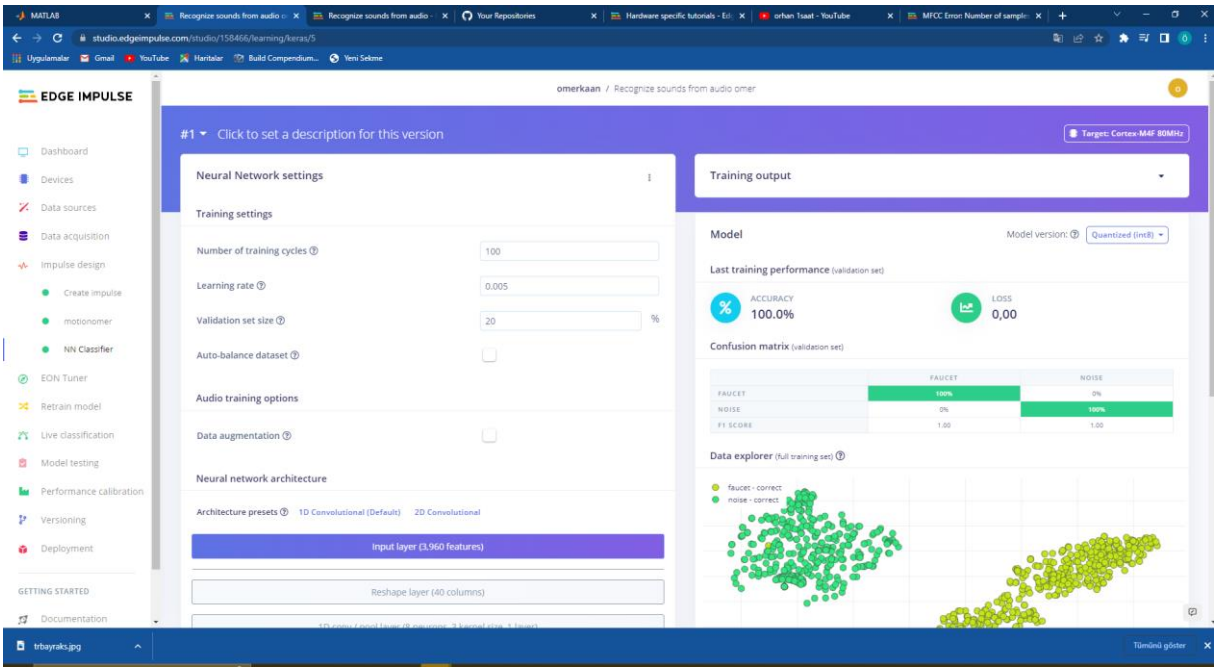
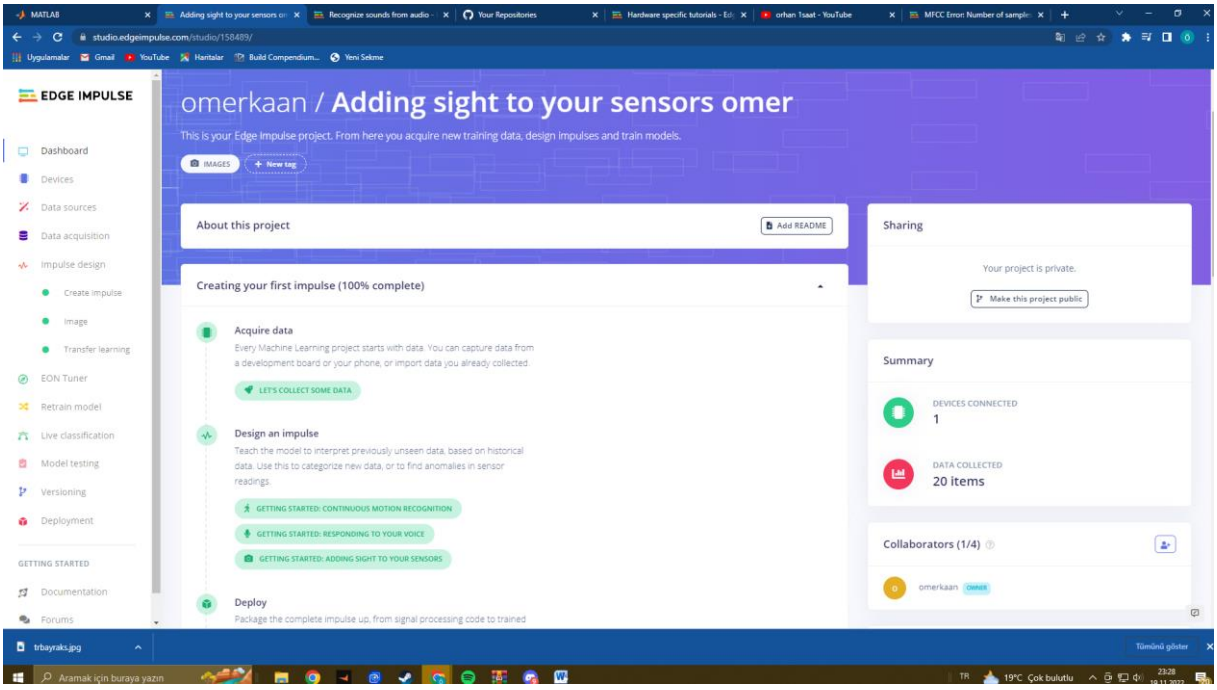
Design an impulse
Teach the model to interpret previously unseen data, based on historical data. Use this to categorize new data, or to find anomalies in sensor readings.
GETTING STARTED: CONTINUOUS MOTION RECOGNITION
GETTING STARTED: RESPONDING TO YOUR VOICE
GETTING STARTED: ADDING SIGHT TO YOUR SENSORS
Sharing
Your project is private.
Make this project public
Summary
DEVICES CONNECTED
1
DATA COLLECTED
16m 41s
Collaborators (1/4)
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
motionomer
NN Classifier
EON Tuner
Retrain model
Live classification
Model testing
Performance calibration
Versioning
Deployment
GETTING STARTED
Documentation

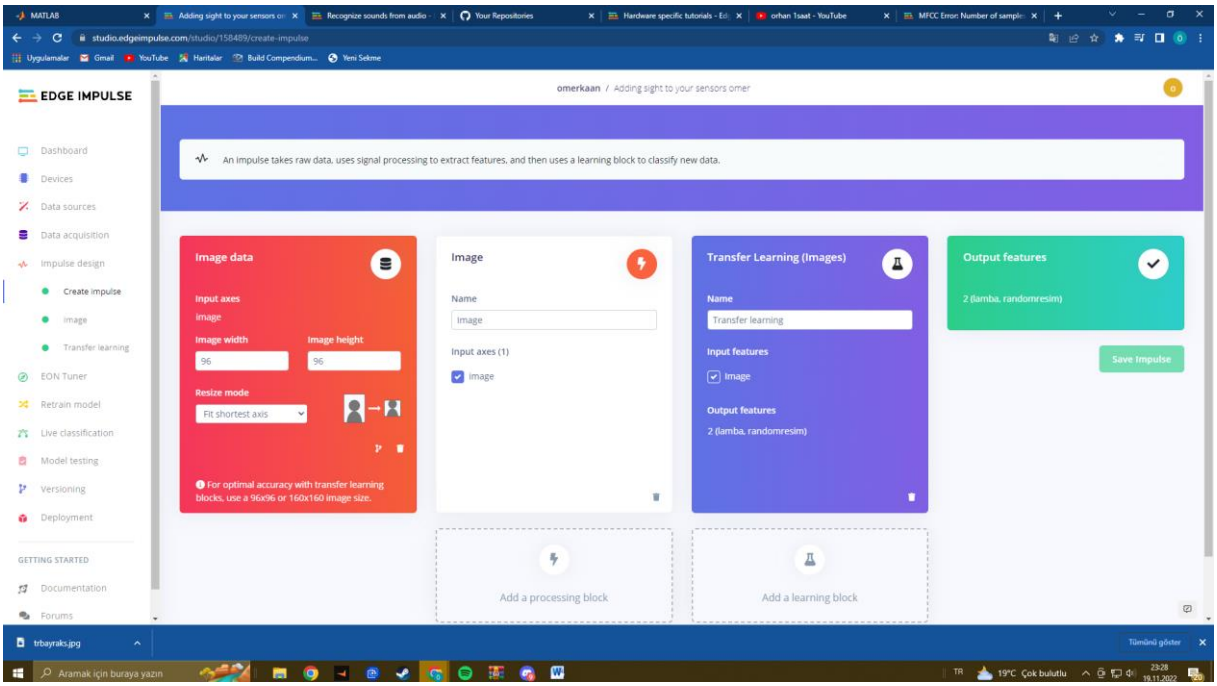

EDGE IMPULSE
omerkaan / Recognize sounds from audio omer
An impulse takes raw data, uses signal processing to extract features, and then uses a learning block to classify new data.
Time series data
Input axes
audio
Window size
1000 ms.
Window increase
500 ms.
Frequency (Hz)
16000
Zero-pad data
Audio (MFE)
Name
motionomer
Input axes (1)
audio
Classification (Keras)
Name
NN Classifier
Input features
motionomer
Output features
2 (faucet, noise)
Output features
2 (faucet, noise)
Save Impulse
Add a processing block
Add a learning block
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
motionomer
NN Classifier
EON Tuner
Retrain model
Live classification
Model testing
Performance calibration
Versioning
Deployment
GETTING STARTED
Documentation

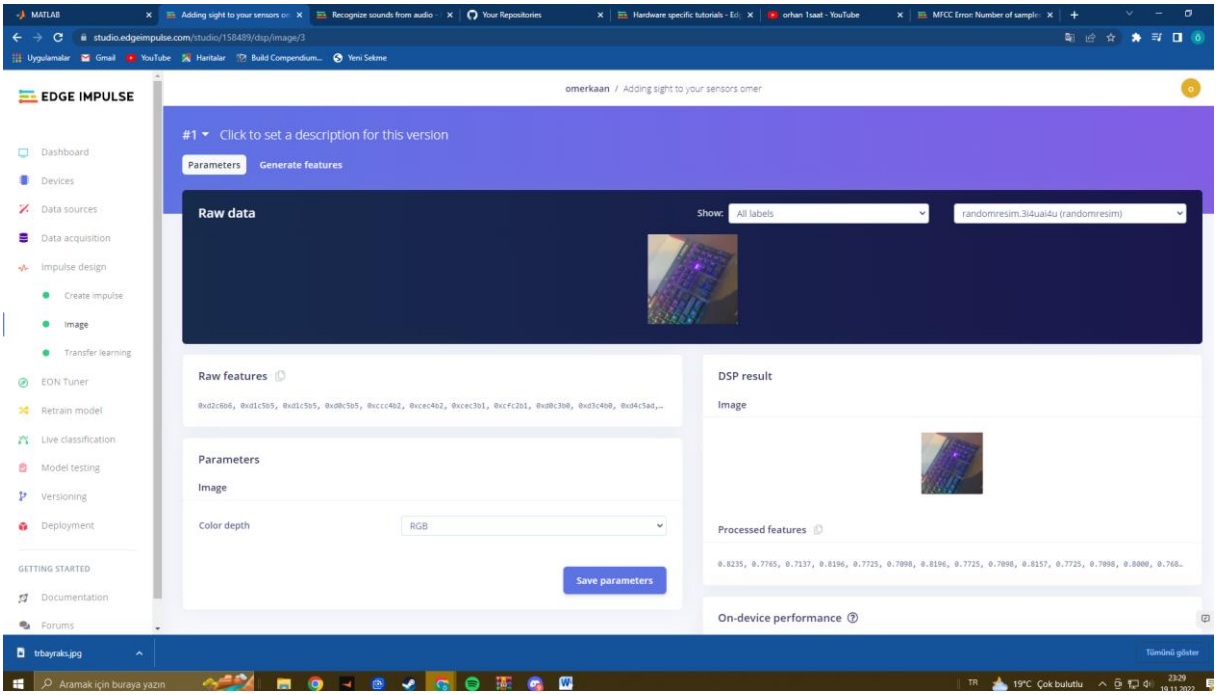

EDGE IMPULSE
#1 Click to set a description for this version
Parameters
Generate features
Raw data
Show:
All labels
faucet.2v1mlqlu (faucet)
audio
0:00 / 0:01
Raw features
Parameters
Mel-filterbank energy features
Frame length
0.02
Frame stride
0.01
Filter number
40
DSP result
Mel Filterbank Energies
Frequency [Hz]
Time [sec]
Processed features

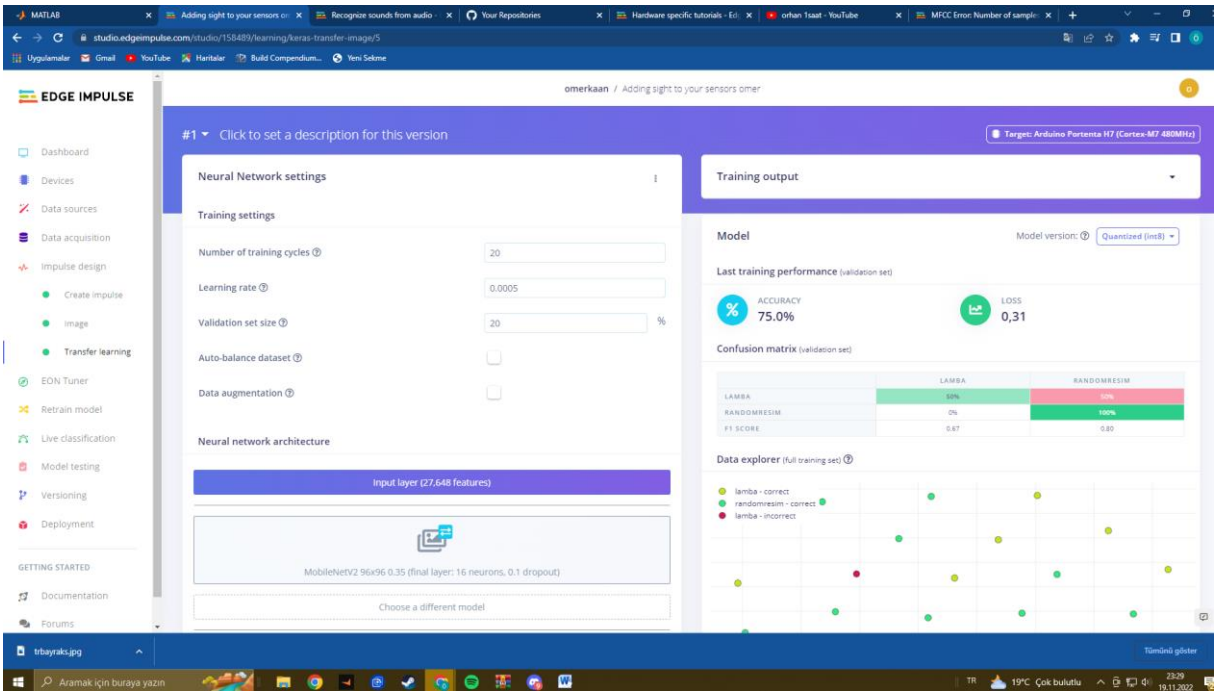

EDGE IMPULSE
omerkaan / Recognize sounds from audio omer
#1 Click to set a description for this version
Target: Cortex-M4F 80MHz
Neural Network settings
Training settings
Number of training cycles 100
Learning rate 0.005
Validation set size 20 %
Auto-balance dataset
Audio training options
Data augmentation
Neural network architecture
Architecture presets 1D Convolutional (Default) 2D Convolutional
Input layer (3,960 features)
Reshape layer (40 columns)
Training output
Model
Model version: Quantized (int8)
Last training performance (validation set)
ACCURACY 100.0%
LOSS 0,00
Confusion matrix (validation set)
FAUCET NOISE
FAUCET 100% 0%
NOISE 0% 100%
F1 SCORE 1.00 1.00
Data explorer (full training set)
faucet - correct
noise - correct
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
motionomer
NN Classifier
EON Tuner
Retrain model
Live classification
Model testing
Performance calibration
Versioning
Deployment
GETTING STARTED
Documentation
trbayraks.jpg
Tümünü göster

4-)

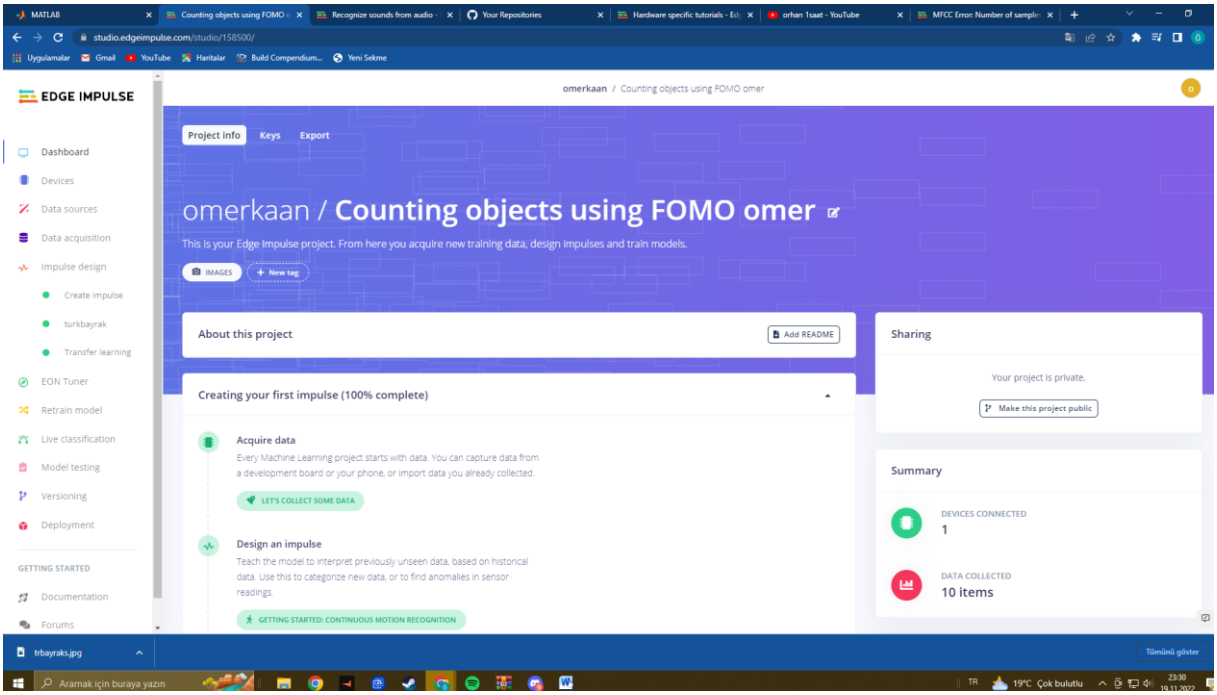

EDGE IMPULSE
omerkaan / Adding sight to your sensors omer
This is your Edge Impulse project. From here you acquire new training data, design impulses and train models.
IMAGES
New tag
About this project
Add README
Creating your first impulse (100% complete)
Acquire data
Every Machine Learning project starts with data. You can capture data from a development board or your phone, or import data you already collected.
LET'S COLLECT SOME DATA
Design an impulse
Teach the model to interpret previously unseen data, based on historical data. Use this to categorize new data, or to find anomalies in sensor readings.
GETTING STARTED: CONTINUOUS MOTION RECOGNITION
GETTING STARTED: RESPONDING TO YOUR VOICE
GETTING STARTED: ADDING SIGHT TO YOUR SENSORS
Deploy
Package the complete impulse up, from signal processing code to trained
Sharing
Your project is private.
Make this project public
Summary
DEVICES CONNECTED 1
DATA COLLECTED 20 items
Collaborators (1/4)
omerkaan OWNER
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
Image
Transfer learning
EON Tuner
Retrain model
Live classification
Model testing
Versioning
Deployment
GETTING STARTED
Documentation
Forums
trbayraks.jpg
Tümünü göster
19°C Çok bulutlu

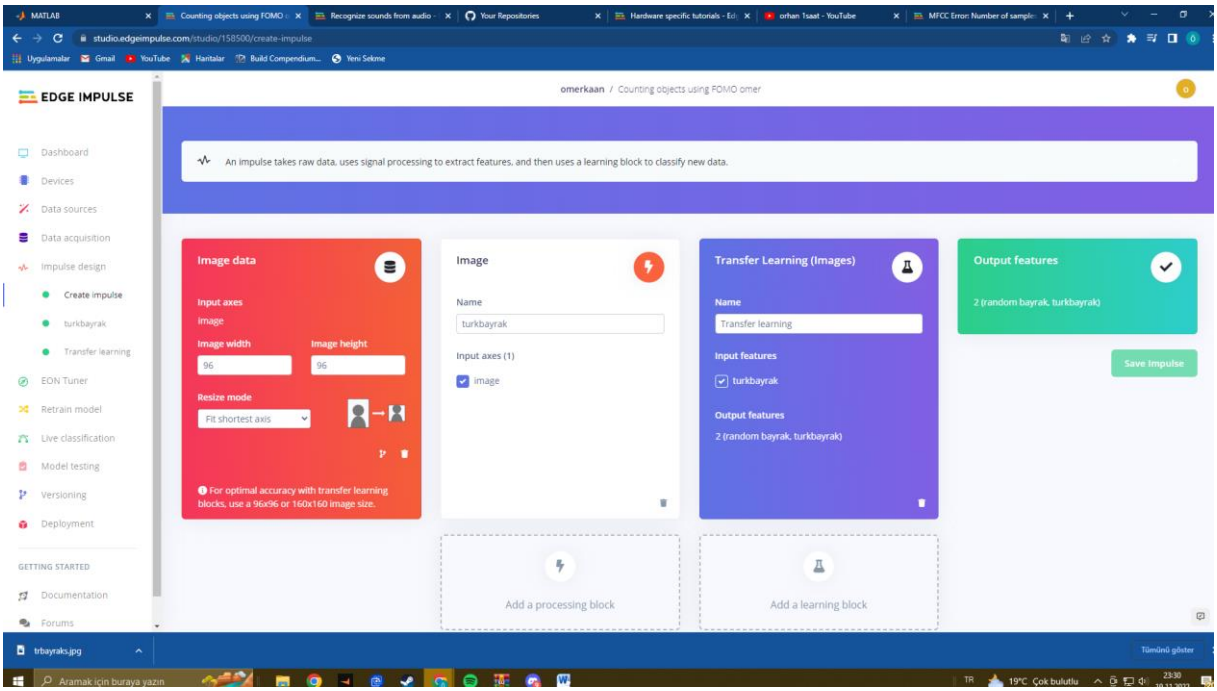

EDGE IMPULSE
omerkaan / Adding sight to your sensors omer
An impulse takes raw data, uses signal processing to extract features, and then uses a learning block to classify new data.
Image data
Input axes
image
Image width
96
Image height
96
Resize mode
Fit shortest axis
For optimal accuracy with transfer learning blocks, use a 96x96 or 160x160 image size.
Image
Name
image
Input axes (1)
image
Transfer Learning (Images)
Name
Transfer learning
Input features
image
Output features
2 (lamba, randomresim)
Output features
2 (lamba, randomresim)
Save Impulse
Add a processing block
Add a learning block
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
Image
Transfer learning
EON Tuner
Retrain model
Live classification
Model testing
Versioning
Deployment
GETTING STARTED
Documentation
Forums

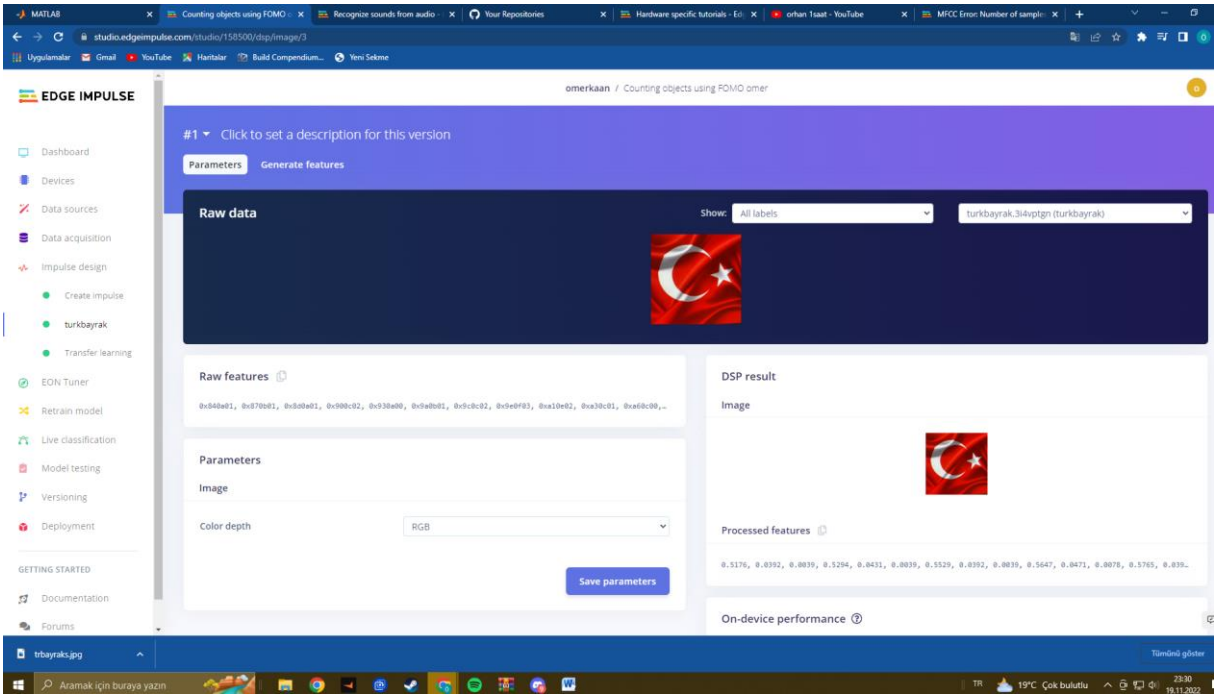

EDGE IMPULSE
omerkaan / Adding sight to your sensors omer
#1 Click to set a description for this version
Parameters
Generate features
Raw data
Show:
All labels
randomresim.3i4uai4u (randomresim)
Raw features
DSP result
Image
Parameters
Image
Color depth
RGB
Save parameters
Processed features
On-device performance
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
Image
Transfer learning
EON Tuner
Retrain model
Live classification
Model testing
Versioning
Deployment
GETTING STARTED
Documentation
Forums

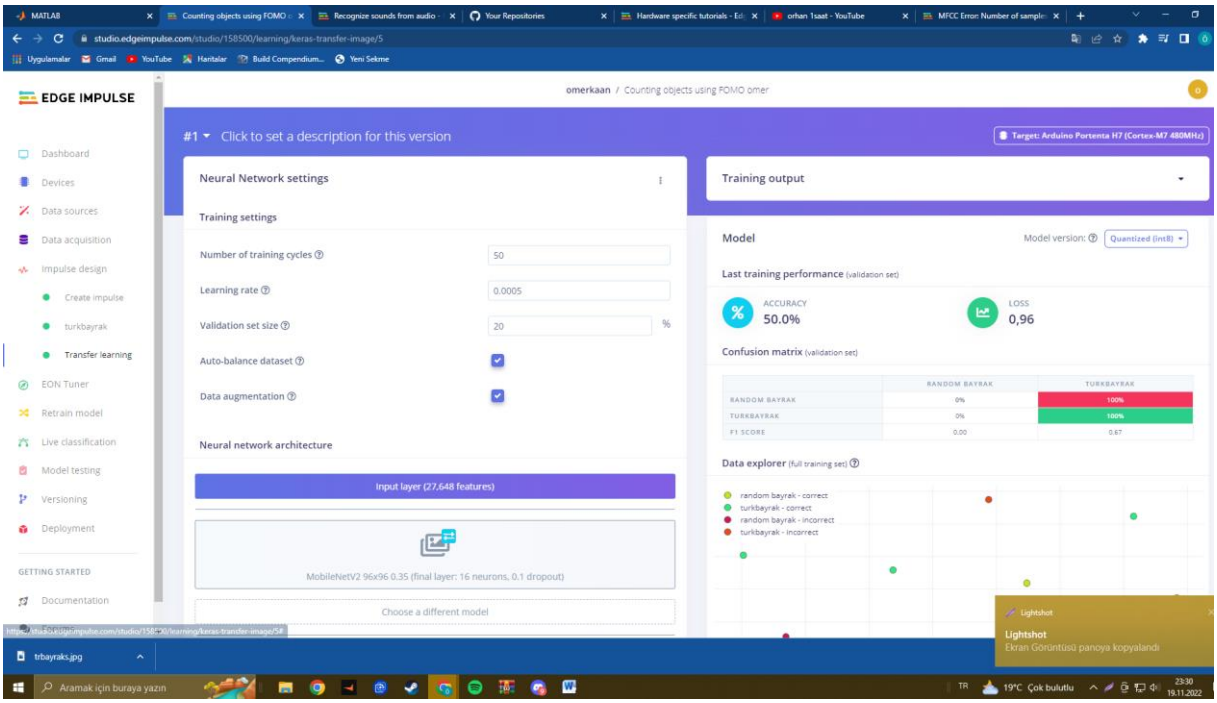

EDGE IMPULSE
omerkaan / Adding sight to your sensors omer
#1 Click to set a description for this version
Target: Arduino Portenta H7 (Cortex-M7 480MHz)
Neural Network settings
Training settings
Number of training cycles 20
Learning rate 0.0005
Validation set size 20 %
Auto-balance dataset
Data augmentation
Neural network architecture
Input layer (27,648 features)
MobileNetV2 96x96 0.35 (final layer: 16 neurons, 0.1 dropout)
Choose a different model
Training output
Model
Model version: Quantized (int8)
Last training performance (validation set)
ACCURACY 75.0%
LOSS 0,31
Confusion matrix (validation set)
LAMBA
RANDOMRESIM
F1 SCORE
Data explorer (full training set)
lamba - correct
randomresim - correct
lamba - incorrect
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
Image
Transfer learning
EON Tuner
Retrain model
Live classification
Model testing
Versioning
Deployment
GETTING STARTED
Documentation
Forums
trbayraks.jpg
Tümünü göster
Aramak için buraya yazın
19°C Çok bulutlu

5-)


EDGE IMPULSE
omerkaan / Counting objects using FOMO omer
Project info
Keys
Export
omerkaan / Counting objects using FOMO omer
This is your Edge Impulse project. From here you acquire new training data, design impulses and train models.
IMAGES
New tag
About this project
Add README
Sharing
Your project is private.
Make this project public
Creating your first impulse (100% complete)
Acquire data
Every Machine Learning project starts with data. You can capture data from a development board or your phone, or import data you already collected.
LET'S COLLECT SOME DATA
Design an impulse
Teach the model to interpret previously unseen data, based on historical data. Use this to categorize new data, or to find anomalies in sensor readings.
GETTING STARTED: CONTINUOUS MOTION RECOGNITION
Summary
DEVICES CONNECTED
1
DATA COLLECTED
10 items
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
turkbayrak
Transfer learning
EON Tuner
Retrain model
Live classification
Model testing
Versioning
Deployment
GETTING STARTED
Documentation
Forums
trbayraks.jpg
Tümünü göster
Aramak için buraya yazın
19°C Çok bulutlu


EDGE IMPULSE
omerkaan / Counting objects using FOMO omer
An impulse takes raw data, uses signal processing to extract features, and then uses a learning block to classify new data.
Image data
Input axes
image
Image width
96
Image height
96
Resize mode
Fit shortest axis
For optimal accuracy with transfer learning blocks, use a 96x96 or 160x160 image size.
Image
Name
turkbayrak
Input axes (1)
image
Transfer Learning (Images)
Name
Transfer learning
Input features
turkbayrak
Output features
2 (random bayrak, turkbayrak)
Output features
2 (random bayrak, turkbayrak)
Save Impulse
Add a processing block
Add a learning block
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
turkbayrak
Transfer learning
EON Tuner
Retrain model
Live classification
Model testing
Versioning
Deployment
GETTING STARTED
Documentation
Forums


EDGE IMPULSE
omerkaan / Counting objects using FOMO omer
#1 Click to set a description for this version
Parameters
Generate features
Raw data
Show:
All labels
turkbayrak.3li4vptgn (turkbayrak)
Raw features
DSP result
Image
Parameters
Image
Color depth
RGB
Save parameters
Processed features
On-device performance
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
turkbayrak
Transfer learning
EON Tuner
Retrain model
Live classification
Model testing
Versioning
Deployment
GETTING STARTED
Documentation
Forums


EDGE IMPULSE
omerkaan / Counting objects using FOMO omer
#1 Click to set a description for this version
Target: Arduino Portenta H7 (Cortex-M7 480MHz)
Dashboard
Devices
Data sources
Data acquisition
Impulse design
Create impulse
turkbayrak
Transfer learning
EON Tuner
Retrain model
Live classification
Model testing
Versioning
Deployment
GETTING STARTED
Documentation
Forums
Neural Network settings
Training settings
Number of training cycles
50
Learning rate
0.0005
Validation set size
20
%
Auto-balance dataset
Data augmentation
Neural network architecture
Input layer (27,648 features)
MobileNetV2 96x96 0.35 (final layer: 16 neurons, 0.1 dropout)
Choose a different model
Training output
Model
Model version:
Quantized (int8)
Last training performance (validation set)
ACCURACY
50.0%
LOSS
0,96
Confusion matrix (validation set)
RANDOM BAYRAK
TURKBAYRAK
F1 SCORE
0.00
0.67
Data explorer (full training set)
random bayrak - correct
turkbayrak - correct
random bayrak - incorrect
turkbayrak - incorrect
Lightshot
Ekran Görüntüsü panoya kopyalandı
trbayraks.jpg
Aramak için buraya yazın
19°C Çok bulutlu
23:30
19.11.2022