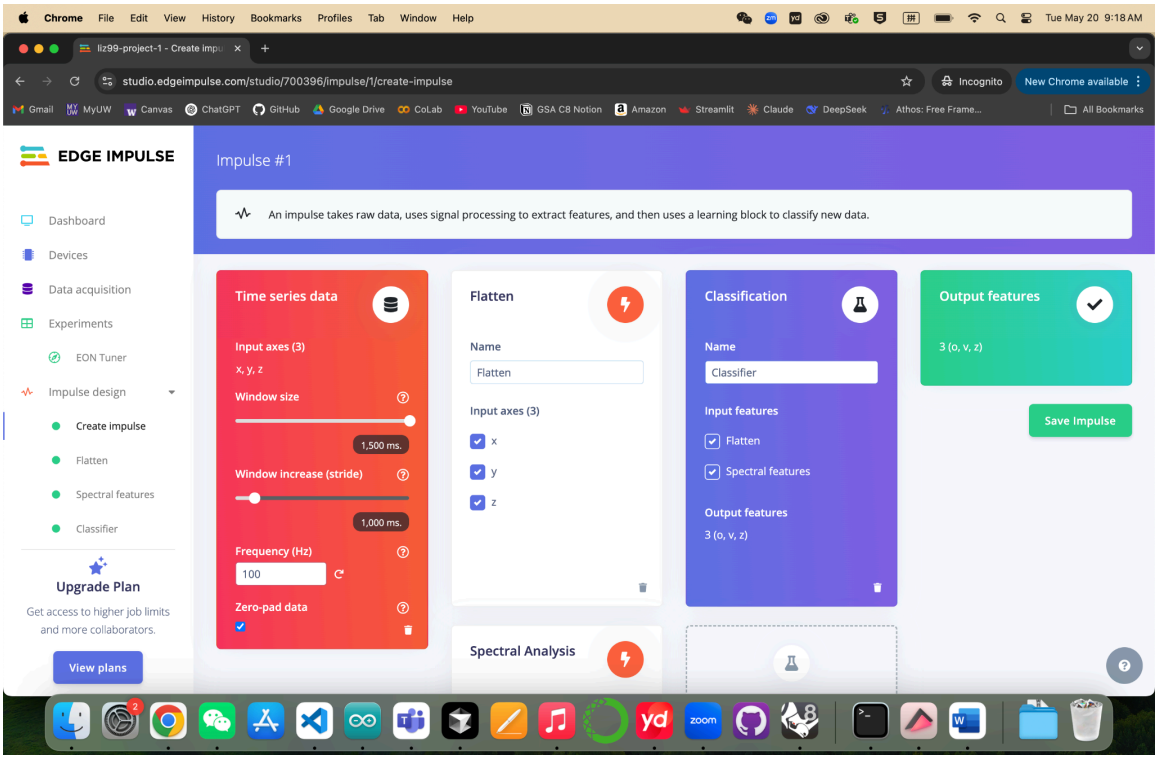
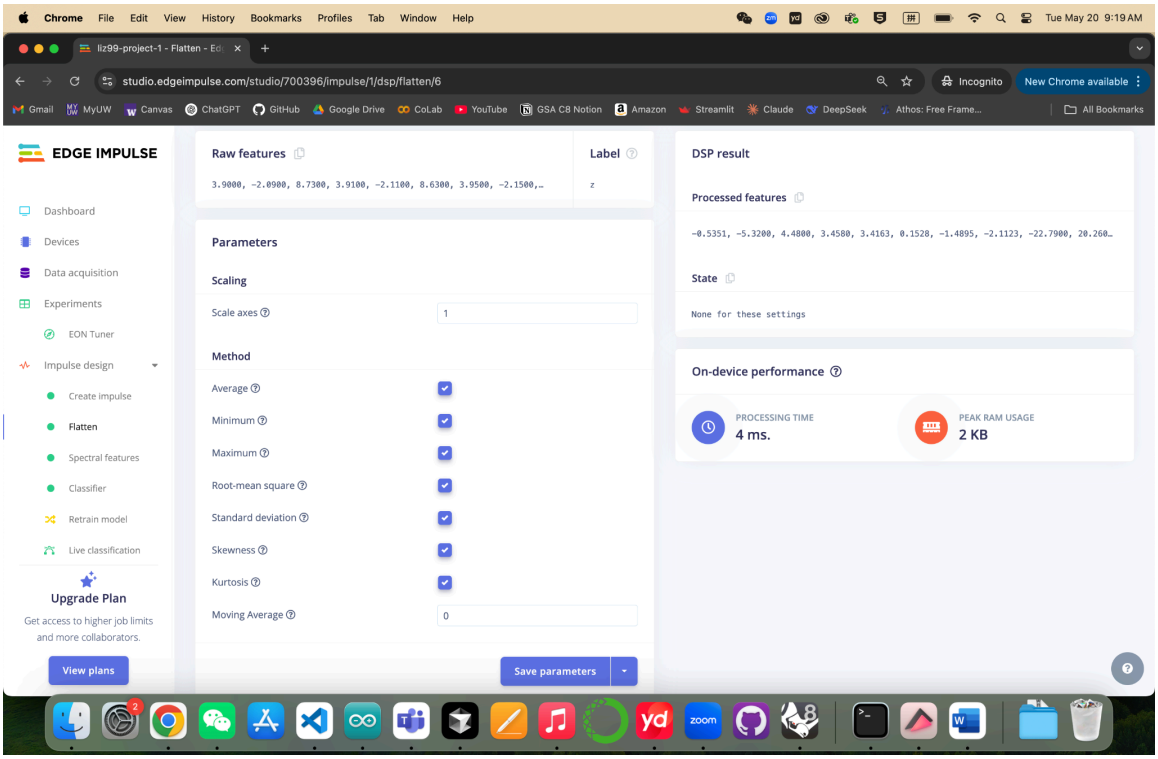
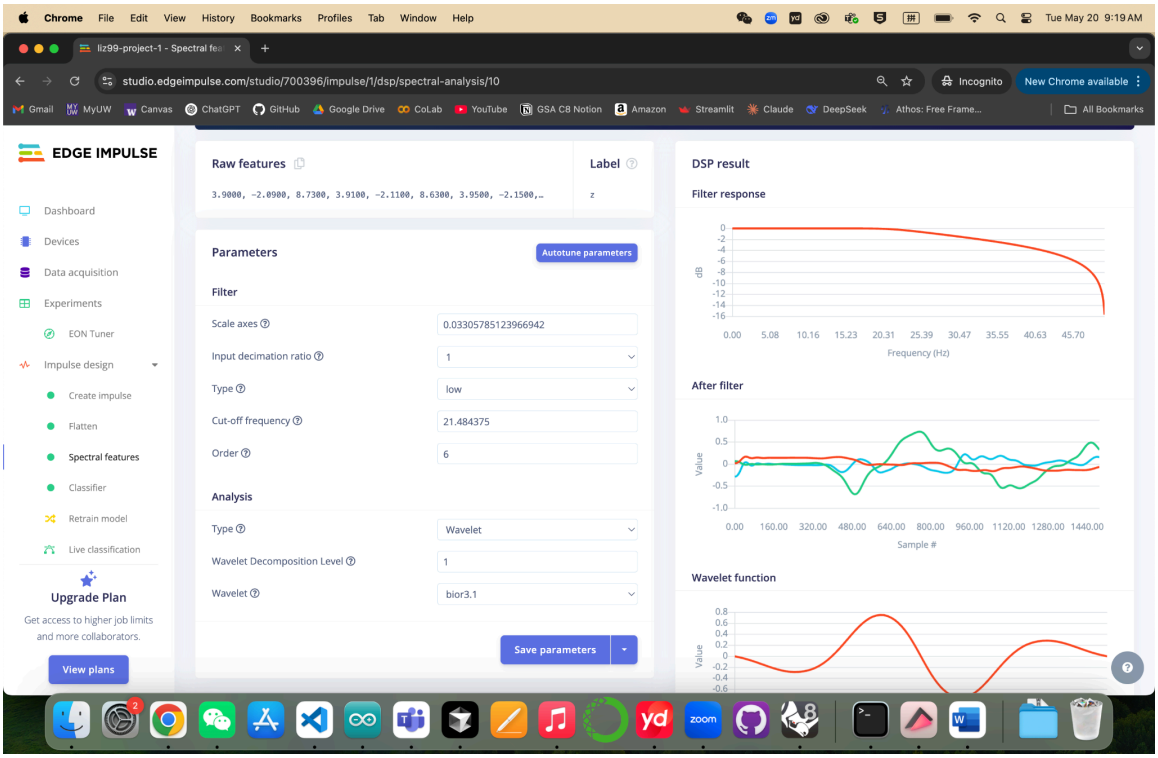
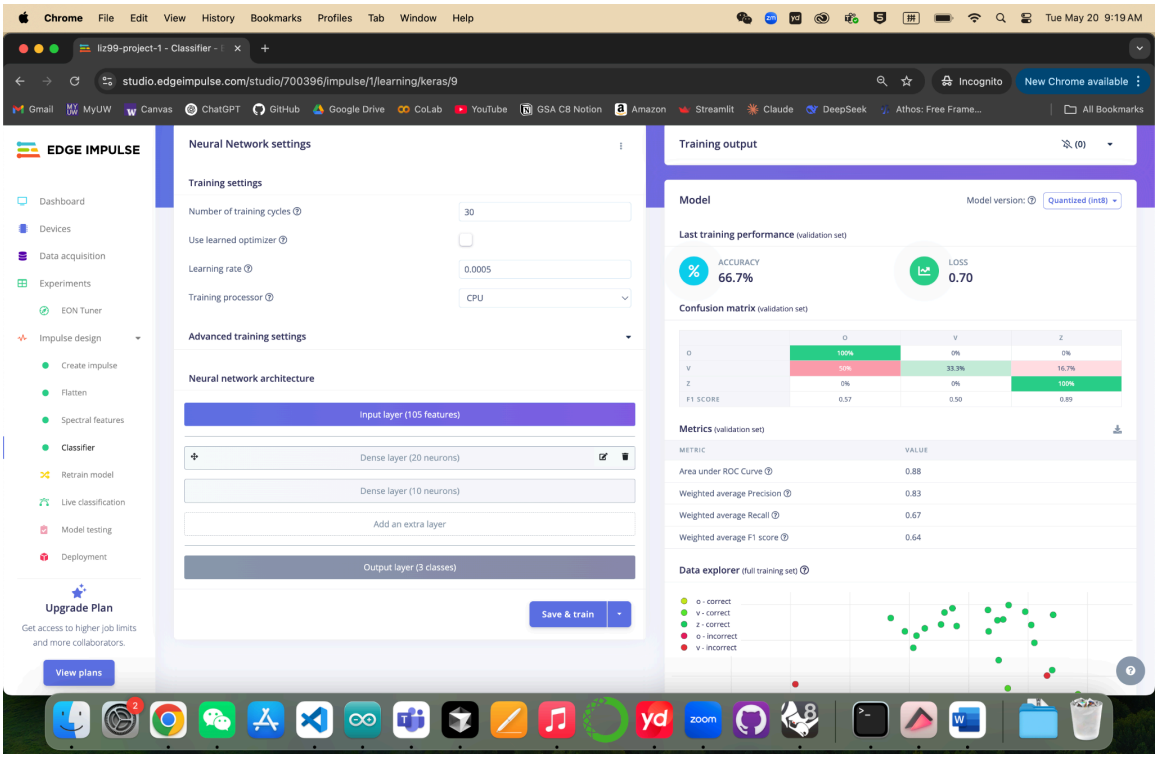
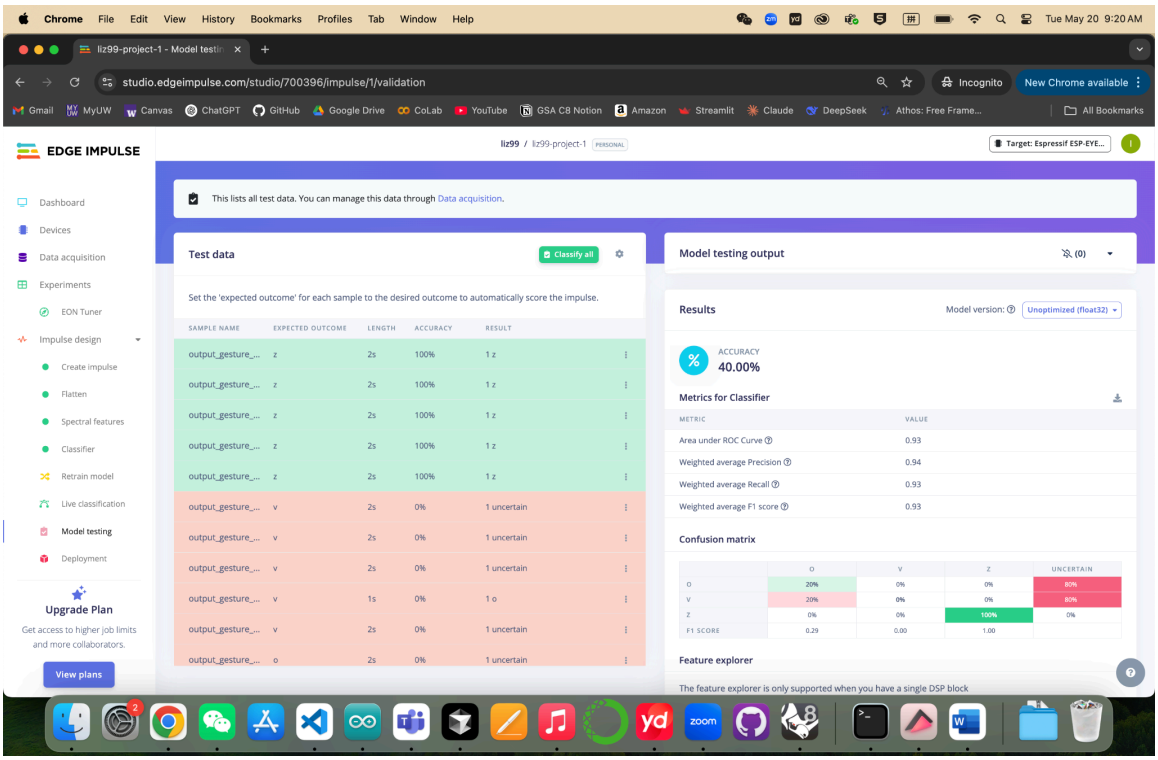
Screenshots

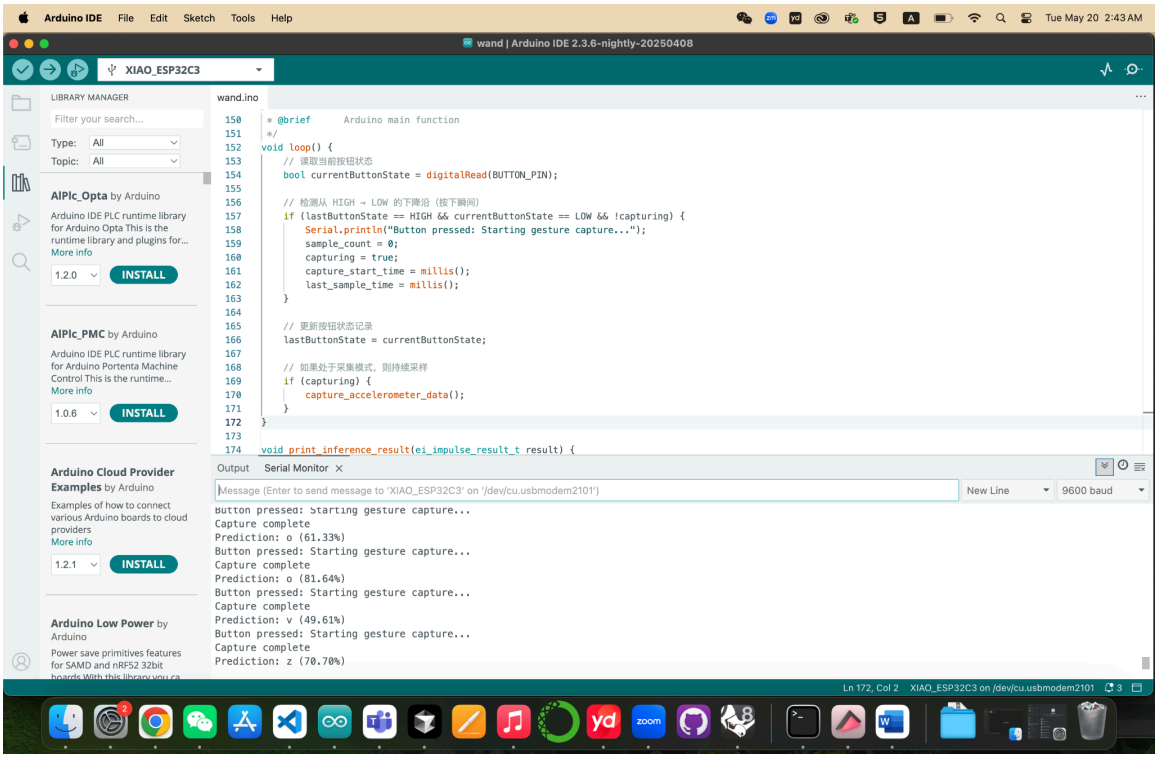





Chrome File Edit View History Bookmarks Profiles Tab Window Help
Tue May 20 9:19 AM
liz99-project-1 - Spectral fea
studio.edgeimpulse.com/studio/700396/impulse/1/dsp/spectral-analysis/10
Incognito
New Chrome available
Gmail MyUW Canvas ChatGPT GitHub Google Drive CoLab YouTube GSA CB Notion Amazon Streamlit Claude DeepSeek Athos: Free Frame... All Bookmarks
EDGE IMPULSE
Dashboard
Devices
Data acquisition
Experiments
EON Tuner
Impulse design
Create impulse
Flatten
Spectral features
Classifier
Retrain model
Live classification
Upgrade Plan
Get access to higher job limits and more collaborators.
View plans
Raw features
3.9000, -2.0900, 8.7300, 3.9100, -2.1100, 8.6300, 3.9500, -2.1500,…
Label
z
Parameters
Autotune parameters
Filter
Scale axes
0.03305785123966942
Input decimation ratio
1
Type
low
Cut-off frequency
21.484375
Order
6
Analysis
Type
Wavelet
Wavelet Decomposition Level
1
Wavelet
bior3.1
Save parameters
DSP result
Filter response
dB
Frequency (Hz)
After filter
Value
Sample #
Wavelet function
Value


Chrome File Edit View History Bookmarks Profiles Tab Window Help
Tue May 20 9:19 AM
liz99-project-1 - Classifier -
studio.edgeimpulse.com/studio/700396/impulse/1/learning/keras/9
Incognito
New Chrome available
EDGE IMPULSE
Dashboard
Devices
Data acquisition
Experiments
EON Tuner
Impulse design
Create impulse
Flatten
Spectral features
Classifier
Retrain model
Live classification
Model testing
Deployment
Upgrade Plan
Get access to higher job limits and more collaborators.
View plans
Neural Network settings
Training settings
Number of training cycles 30
Use learned optimizer
Learning rate 0.0005
Training processor CPU
Advanced training settings
Neural network architecture
Input layer (105 features)
Dense layer (20 neurons)
Dense layer (10 neurons)
Add an extra layer
Output layer (3 classes)
Save & train
Training output
Model
Model version: Quantized (int8)
Last training performance (validation set)
ACCURACY 66.7%
LOSS 0.70
Confusion matrix (validation set)
Metrics (validation set)
Area under ROC Curve 0.88
Weighted average Precision 0.83
Weighted average Recall 0.67
Weighted average F1 score 0.64
Data explorer (full training set)
o - correct
v - correct
z - correct
o - incorrect
v - incorrect


Chrome File Edit View History Bookmarks Profiles Tab Window Help
Tue May 20 9:20 AM
liz99-project-1 - Model testin
studio.edgeimpulse.com/studio/700396/impulse/1/validation
Incognito
New Chrome available
EDGE IMPULSE
liz99 / liz99-project-1
Target: Espressif ESP-EYE...
Dashboard
Devices
Data acquisition
Experiments
EON Tuner
Impulse design
Create impulse
Flatten
Spectral features
Classifier
Retrain model
Live classification
Model testing
Deployment
Upgrade Plan
Get access to higher job limits and more collaborators.
View plans
This lists all test data. You can manage this data through Data acquisition.
Test data
Classify all
Set the 'expected outcome' for each sample to the desired outcome to automatically score the impulse.
SAMPLE NAME
EXPECTED OUTCOME
LENGTH
ACCURACY
RESULT
Model testing output
Results
Model version: Unoptimized (float32)
ACCURACY 40.00%
Metrics for Classifier
Area under ROC Curve 0.93
Weighted average Precision 0.94
Weighted average Recall 0.93
Weighted average F1 score 0.93
Confusion matrix
Feature explorer
The feature explorer is only supported when you have a single DSP block


Arduino IDE File Edit Sketch Tools Help
Tue May 20 2:43 AM
wand | Arduino IDE 2.3.6-nightly-20250408
XIAO_ESP32C3
LIBRARY MANAGER
Filter your search...
Type: All
Topic: All
AIPlc_Opta by Arduino
Arduino IDE PLC runtime library for Arduino Opta This is the runtime library and plugins for...
More info
1.2.0 INSTALL
AIPlc_PMC by Arduino
Arduino IDE PLC runtime library for Arduino Portenta Machine Control This is the runtime...
More info
1.0.6 INSTALL
Arduino Cloud Provider Examples by Arduino
Examples of how to connect various Arduino boards to cloud providers
More info
1.2.1 INSTALL
Arduino Low Power by Arduino
Power save primitives features for SAMD and nRF52 32bit
wand.ino
150 * @brief Arduino main function
151 */
152 void loop() {
153 // 读取当前按钮状态
154 bool currentButtonState = digitalRead(BUTTON_PIN);
155
156 // 检测从 HIGH → LOW 的下降沿（按下瞬间）
157 if (lastButtonState == HIGH && currentButtonState == LOW && !capturing) {
158 Serial.println("Button pressed: Starting gesture capture...");
159 sample_count = 0;
160 capturing = true;
161 capture_start_time = millis();
162 last_sample_time = millis();
163 }
164
165 // 更新按钮状态记录
166 lastButtonState = currentButtonState;
167
168 // 如果处于采集模式，则持续采样
169 if (capturing) {
170 capture_accelerometer_data();
171 }
172 }
173
174 void print_inference_result(ei_impulse_result_t result) {
Output Serial Monitor
Message (Enter to send message to 'XIAO_ESP32C3' on '/dev/cu.usbmodem2101')
New Line
9600 baud
Button pressed: Starting gesture capture...
Capture complete
Prediction: o (61.33%)
Button pressed: Starting gesture capture...
Capture complete
Prediction: o (81.64%)
Button pressed: Starting gesture capture...
Capture complete
Prediction: v (49.61%)
Button pressed: Starting gesture capture...
Capture complete
Prediction: z (70.70%)
Ln 172, Col 2 XIAO_ESP32C3 on /dev/cu.usbmodem2101