EDGE IMPULSE

Edge Impulse Overview

Shawn Hymel

Agenda

1. Overview of Edge Impulse
2. Demo
3. New Features
4. University Program

Questions?

Tag me @ShawnHymel in the

Tiny Machine Learning server on Discord

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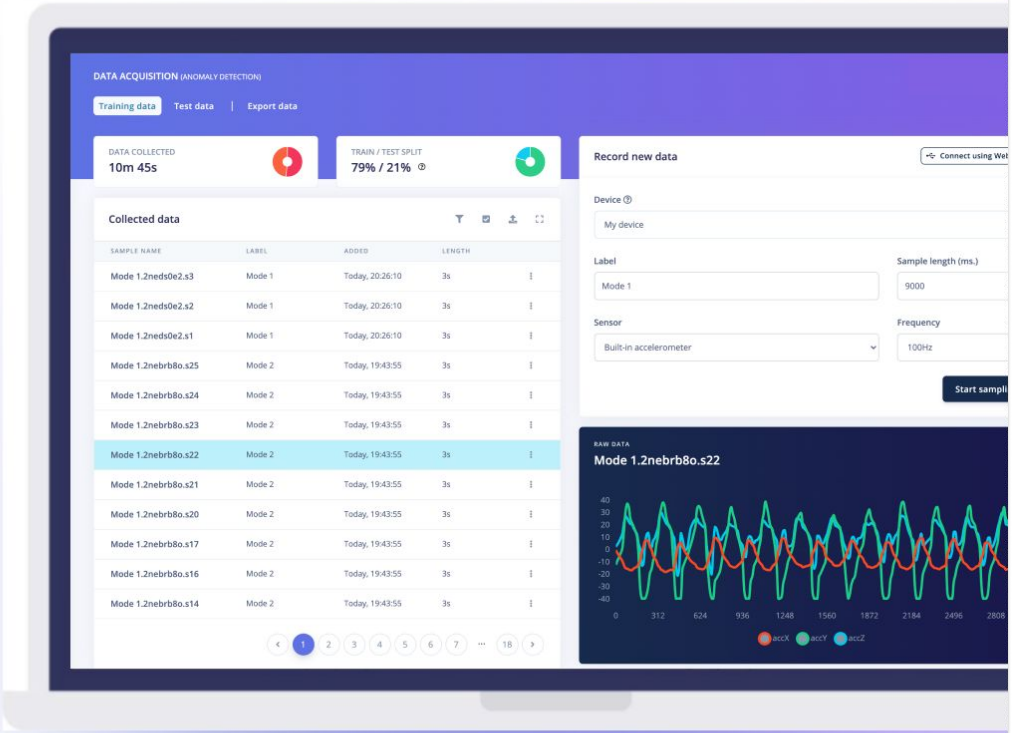
EDGE IMPULSE

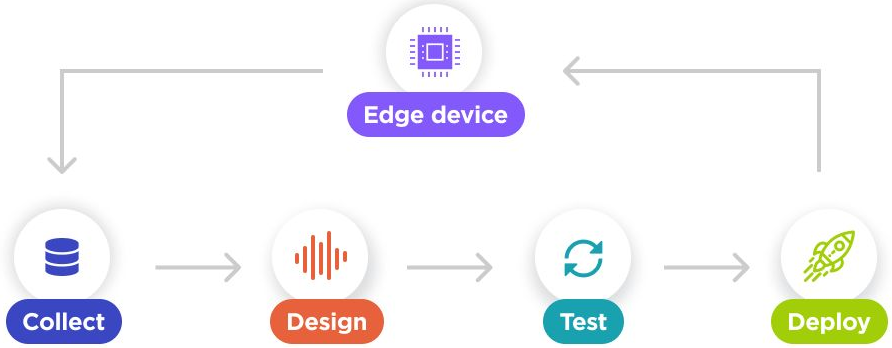
The developer-first edge ML platform

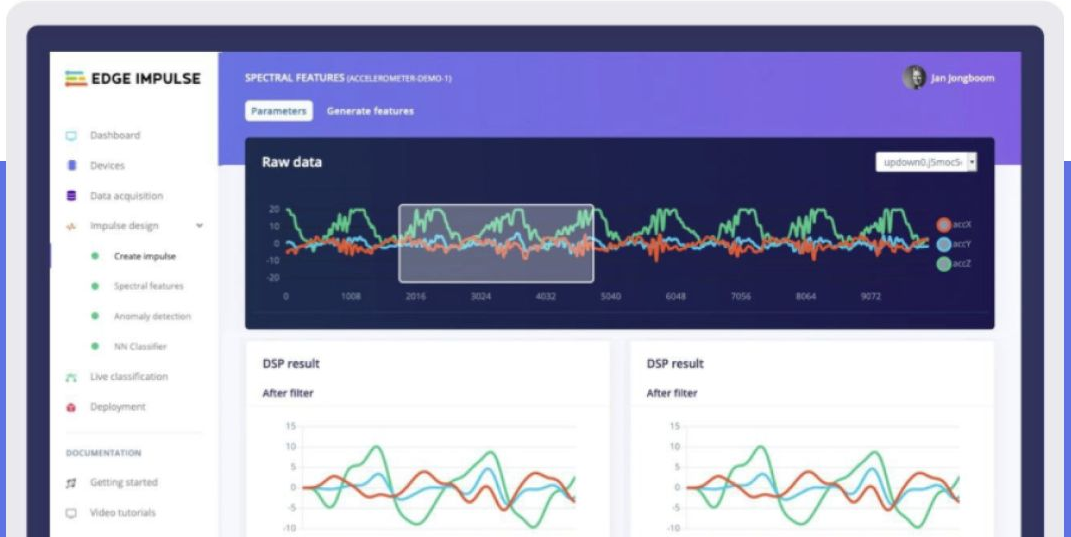
- Any data, any device
- No royalty, no impact on BOM
- Your IP, stays your IP
- Total explainability, no black boxes



EDGE IMPULSE

Go to market faster with confidence





Example: Roshambo

Machine learning model that classifies hand gestures

Public project: https://studio.edgeimpulse.com/public/184608/latest

Full workshop: https://github.com/edgeimpulse/workshop-arduino-tinyml-roshambo

rock

paper

scissors

_background

_unknown

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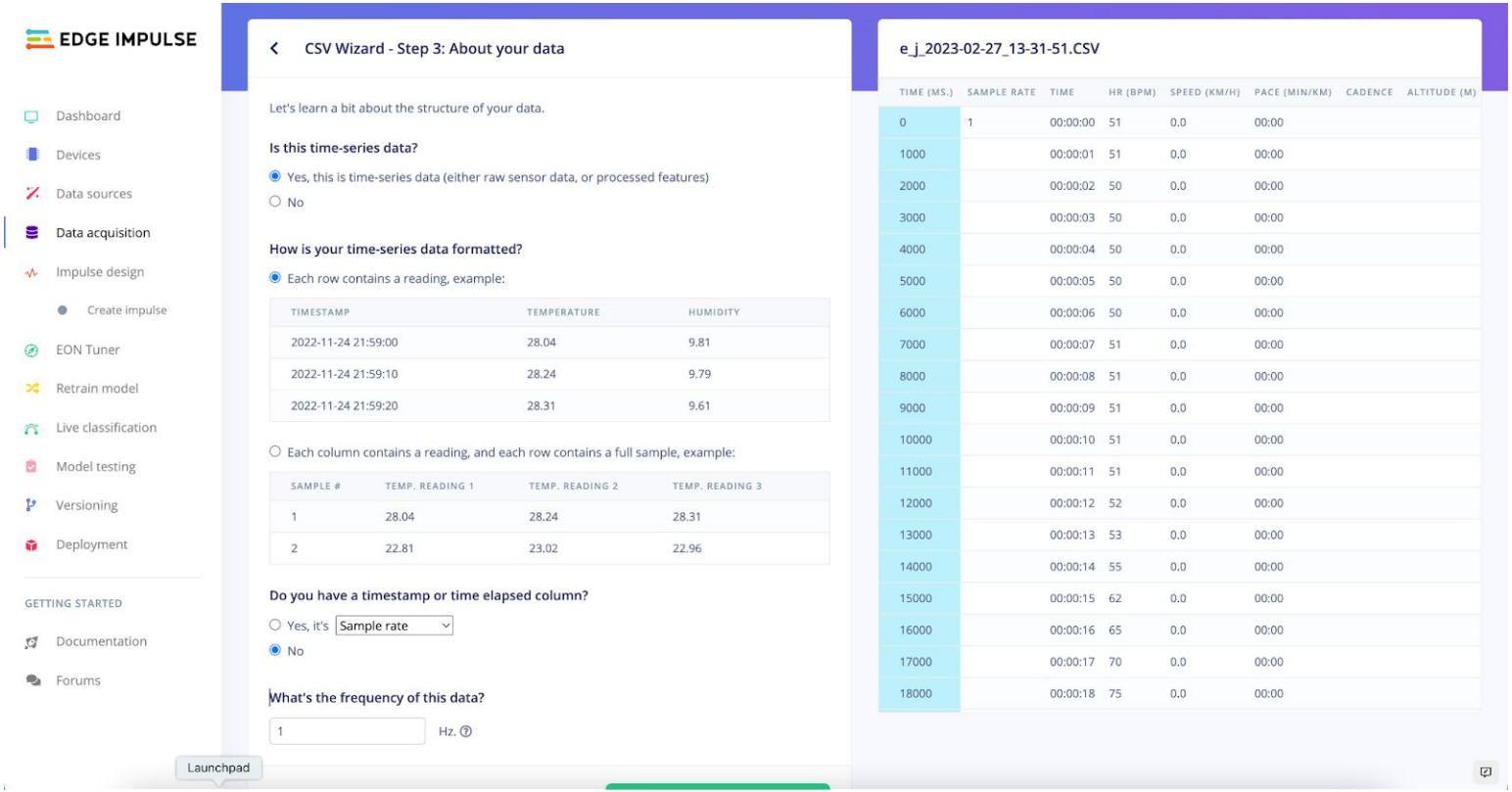
New Feature: CSV Wizard



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New Feature: Wavelets

- Discrete Fourier transform (DFT)
  - Decompose signal into sine/cosine components
- Discrete wavelet transform (DWT)
  - Decompose signal into “wavelet” components
  - Multiresolution signal analysis
  - Popular in EEG/ECG analysis

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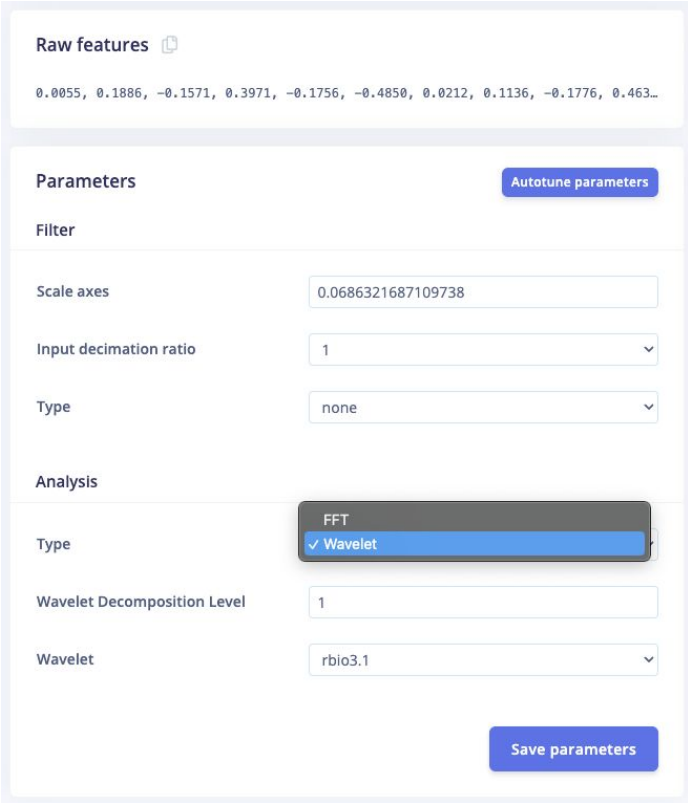
New Feature: DSP Autotuning

- Picking parameters for wavelets (and FFT) can be difficult
- New autotune feature
- Tries different wavelet functions and parameters
- Looks at feature separation among post-DSP samples



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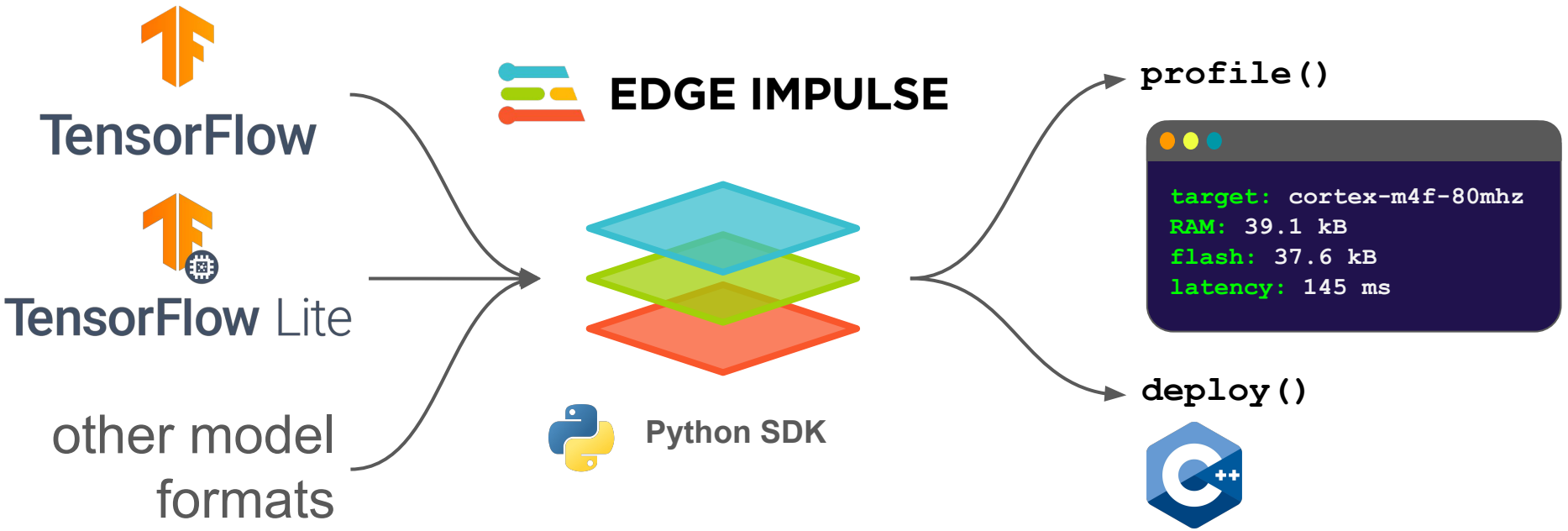
New Feature: Python SDK



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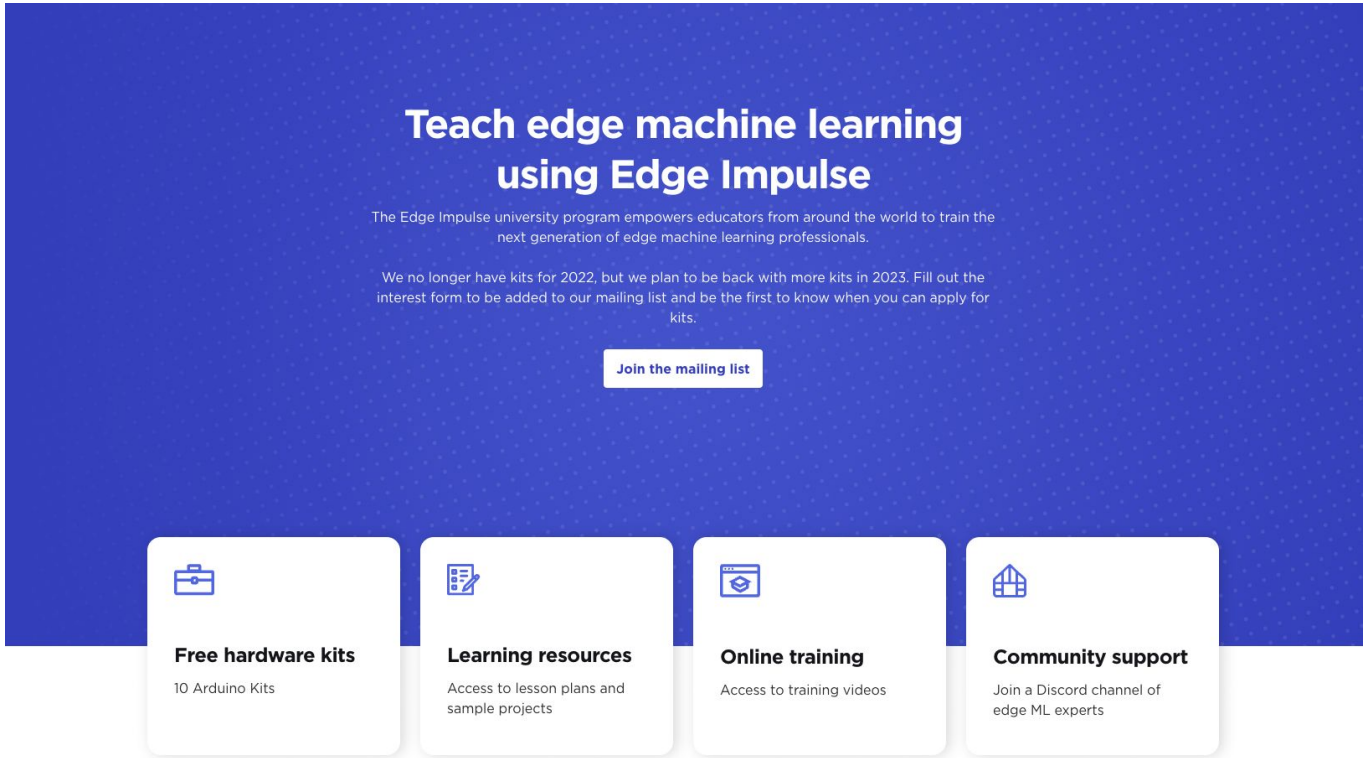
University Program

Learn more: edgeimpulse.com/university



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