tinyML Trailblazers

Ultra-low power machine learning at the edge success stories

tinyML Success Stories
with Zach Shelby
Co-founder and CEO, Edge Impulse

INSPIRE-EDUCATE-ILLUMINATE

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Thank you, tinyML Strategic Partners*, for committing to take tinyML to the next Level, together
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- Automated Data Readiness assessment

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The Latent AI Efficient Inference Platform™ (LEIP) combined with application templates makes optimizing neural networks for production inference a cinch.

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Reach out to info@latentai.com
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Deploy TinyML into the Real World - Plug and Play ML

**Sense**
- Sensors:
  - Modulated and ready-to-use sensors to simplify the setup process
  - Support 500+ Grove modules

**Train**
- Codecraft:
  - No code programming platform to get started with TinyML
  - Supports Arduino, Python, C or JavaScript etc.
  - Wio Terminal:
    - Completed AI platform integrated with a 2.4" LCD screen, onboard IMU (LIS3DHTR), microphone, buzzer, microSD card slot, light sensor, infrared emitter (IR 940nm)

**Inference**
- Edge Impulse:
  - To optimize data utilization and enable deploy a machine learning model faster than ever
  - TensorFlow Lite:
    - To easily train low memory usage machine learning models

**Applications**
- Motion / Gesture / Speech / Smell / Sports
- Barcode / Face / Image

- Artificial Nose
- AI thermal camera for safe camping
- Azure IoT Squirrel Feeder
The Right Edge AI Tools Can Make or Break Your Next Smart IoT Product

Analytics Toolkit Suite

AutoML

Data Collection

Test & Validation

Data Labeling

Code Generation

Team Collaboration

Version Control and Model Management

sensiml.com/tinyML
STMicroelectronics provides extensive solutions to make tiny Machine Learning easy
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www.synaptics.com
SynSense builds sensing and inference hardware for ultra-low-power (sub-mW) embedded, mobile and edge devices. We design systems for real-time always-on smart sensing, for audio, vision, IMUs, bio-signals and more.

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tinyML is a fast-growing initiative around low-power machine-learning technologies for edge devices. The scope of tinyML naturally aligns with the field of neuromorphic engineering, whose purpose is to replicate and exploit the way biological systems sense and process information within constrained resources.

More sponsorships are available: sponsorships@tinyML.org
tinyML EMEA Innovation Forum 2022
Chair: Prof. Francesco Conti (Univ of Bologna)

Connect, Unify, and Grow the tinyML EMEA Community
October 10-12, 2022

https://www.tinyml.org/event/emea-2022
in person in Cyprus, Grand Resort, Limassol

Registration is open now (late fee after Sept 15)

Keynote speakers:

Massimo BANZI
CTO, Arduino

Alberto L. SANGIOVANNI-VINCENTELLI,
UC-Berkeley, Cadence & Synopsys

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Join Growing tinyML Communities:

tinyML - Enabling ultra-low Power ML at the Edge

The tinyML Community
https://www.linkedin.com/groups/13694488/

11.2k members in 46 Groups in 37 Countries

3k members & 8.4k followers
Subscribe to TinyML YouTube Channel for updates and notifications (including this video)
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TinyML YouTube Channel: 7.7k subscribers, 441 videos with 245k views
Reminders

Slides & Videos will be posted tomorrow

tinyml.org/forums  youtube.com/tinyml

Please use the Q&A window for your questions
Chris Rowen

Chris is a Silicon Valley entrepreneur and technologist, now VP of AI Engineering and Product for Webex Collaboration in Cisco. Most recently he was co-founder and CEO of BabbleLabs, a speech ML company, acquired by Cisco in 2020. Prior to BabbleLabs, Chris served as CTO for Cadence’s IP Group, which he joined after Cadence’s acquisition of Tensilica, the company he founded in 1997 to develop extensible processors. He led Tensilica as CEO and later, CTO, to develop one of the most prolific embedded processor architectures, especially for compute-intensive embedded processing. Chris was a pioneer in developing RISC architecture and helped found MIPS Computer Systems in 1984. He has an MS and PhD in EE from Stanford and a BA in physics from Harvard. He was named an IEEE Fellow in 2015 for his work in development of microprocessor technology.
Zach Shelby

Zach is an entrepreneur, angel investor and technologist with a passion for machine learning, embedded and Internet engineering. Zach is a former Arm VP, co-founder and CEO of the Mi-cro:bit Foundation and Sensinode, active in several of his portfolio companies, and is working to bring ML to any edge device as co-founder and CEO of Edge Impulse.
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