# tinyML Trailblazers

Ultra-low power machine learning at the edge success stories

tinyML Success Stories with Kishore Manghnani Co-founder and CEO, Shoreline IoT

INSPIRE-EDUCATE-ILLUMINATE

May 11, 2023







# Thank you, **tinyML Strategic Partners**, for committing to take tinyML to the next Level, together























































## **Executive Strategic Partners**





# The Leading Development Platform for Edge ML

edgeimpulse.com

#### Qualcomm Al research

## Advancing Al research to make efficient Al ubiquitous

#### Power efficiency

Model design, compression, quantization, algorithms, efficient hardware, software tool

#### Personalization

Continuous learning, contextual, always-on, privacy-preserved, distributed learning

#### Efficient learning

Robust learning through minimal data, unsupervised learning, on-device learning

A platform to scale Al across the industry



#### Perception

Object detection, speech recognition, contextual fusion

Reasoning



Edge cloud





Cloud

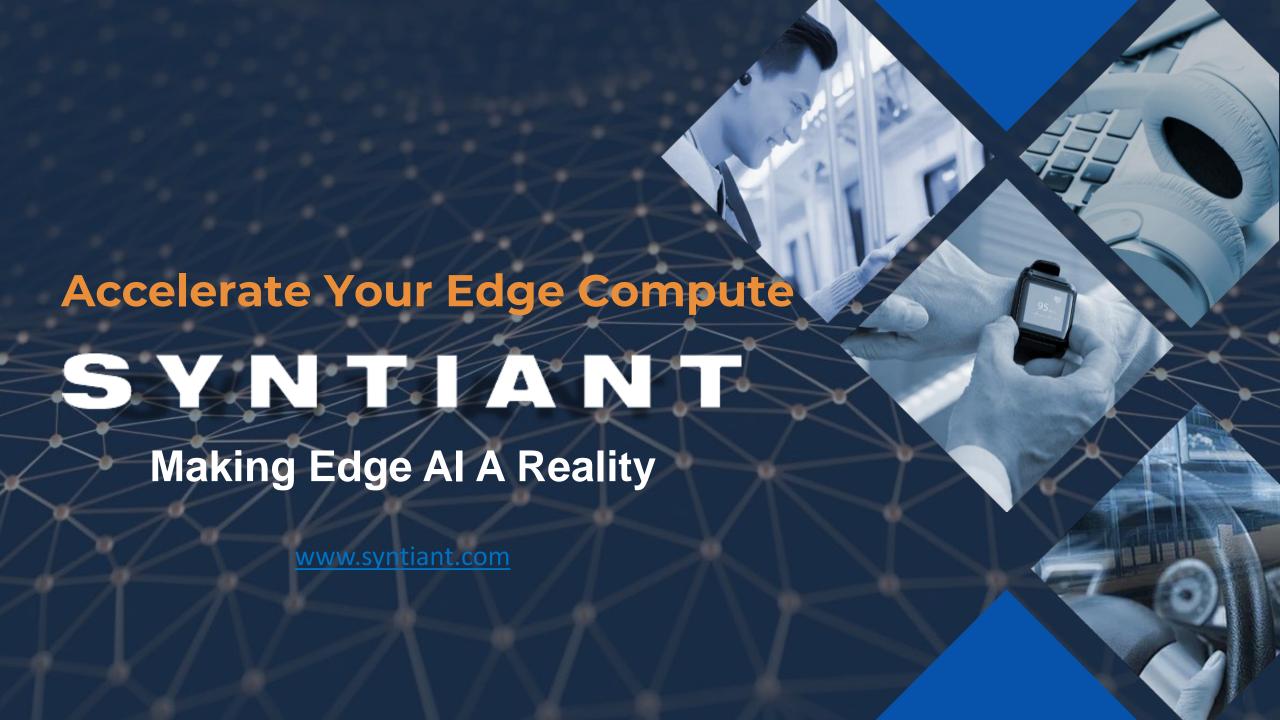




IoT/IIoT



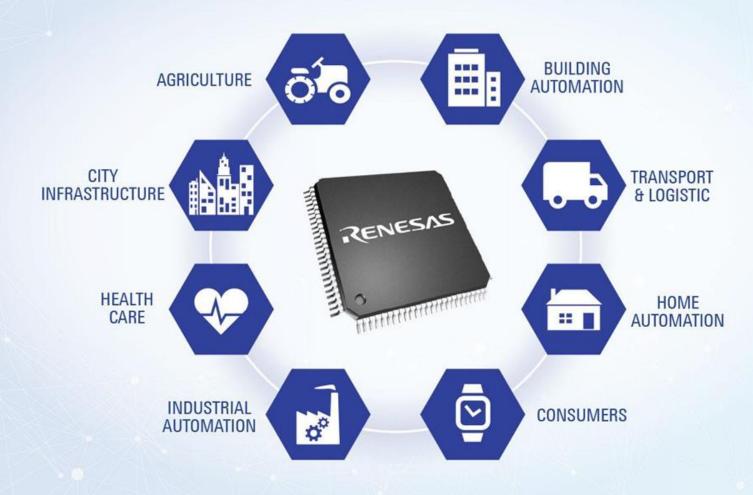






## Platinum Strategic Partners

## Renesas is enabling the next generation of Al-powered solutions that will revolutionize every industry sector.



renesas.com





## DEPLOY VISION AI AT THE EDGE AT SCALE



## **Gold Strategic Partners**





# Where what if becomes what is.

Witness potential made possible at analog.com.





arduino.cc/pro



## arm Al



















## Arm Al Virtual Tech Talks

The latest in AI trends, technologies & best practices from Arm and our Ecosystem Partners.

Demos, code examples, workshops, panel sessions and much more!

Fortnightly Tuesday @ 4pm GMT/8am PT

Find out more: www.arm.com/techtalks



## Driving decarbonization and digitalization. Together.

Infineon serving all target markets as

Leader in Power Systems and IoT



www.infineon.com



NEUROMORPHIC INTELLIGENCE FOR THE SENSOR-EDGE

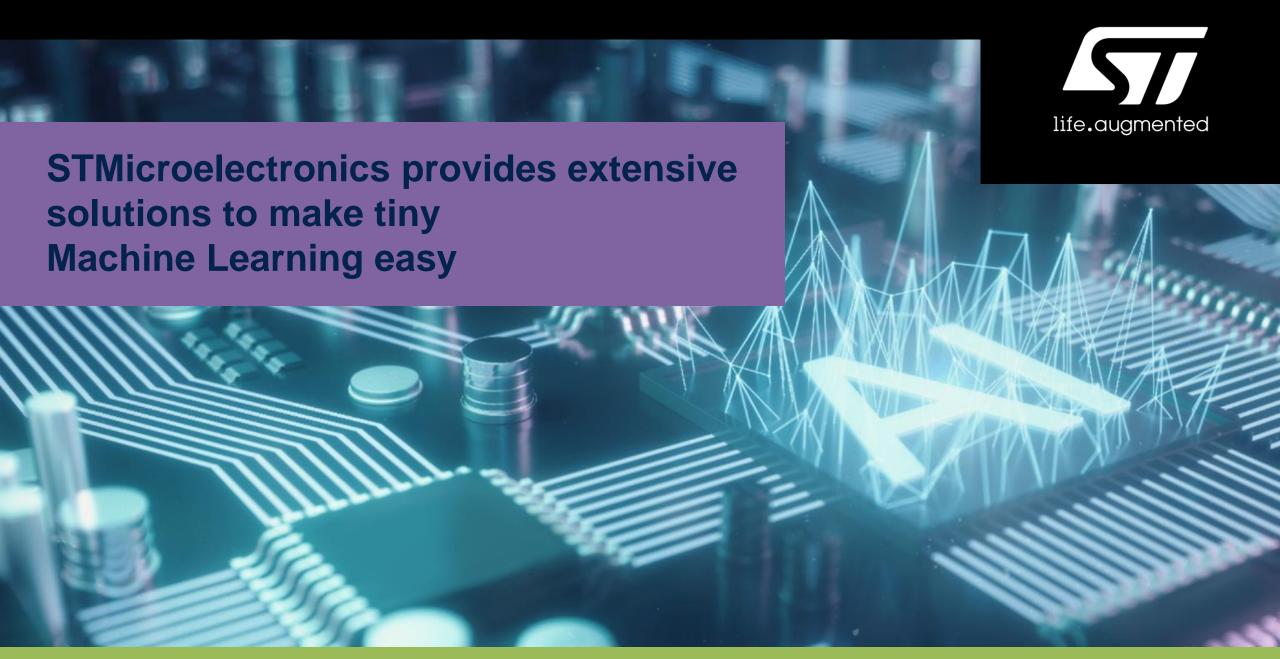




# Microsoft

#### The Right Edge Al Touls Can Make Break Your Next Smart IoT Product







## ENGINEERING EXCEPTIONAL EXPERIENCES

We engineer exceptional experiences for consumers in the home, at work, in the car, or on the go.

www.synaptics.com







## **Silver Strategic Partners**



























## Join Growing tinyML Communities:



14.5k members in47 Groups in 39 Countries

tinyML - Enabling ultra-low Power ML at the Edge

https://www.meetup.com/tinyML-Enabling-ultra-low-Power-ML-at-the-Edge/





4k members & 11.6k followers

The tinyML Community

https://www.linkedin.com/groups/13694488/







Subscribe to tinyML YouTube Channel for updates and notifications (including this video) www.youtube.com/tinyML





#### tinyML 4.33K subscribers

#### 9.3k subscribers, 558 videos with 325k views

HOME

VIDEOS

**PLAYLISTS** 

COMMUNITY

CHANNELS

ABOUT

Q







138 views • 4 days ago

Oon Device Learning Forum - Warren Gros... 54 views • 4 days ago



47 views • 4 days ago





137 views • 4 days ago 132 views • 4 days ago





122 views • 4 days ago

Singapore:... 262 views •

2 weeks ago

511 views • 3 weeks ago

tinyML Talks tinyML Talks Shenzhen: Data... Singapore:...

> 229 views • 3 weeks ago

tinyML Smart Weather Station with Syntiant...

265 views • 3 weeks ago

287 views •

2 months ago



286 views • 1 month ago





351 views • 1 month ago tinyML Auto ML

tinyML Talks Germany: **Tutorial with Qeexo** Neural network.. 374 views • 462 views •

2 months ago



tinyML Trailblazers with Yoram Zylberberg

133 views • 2 months ago



tinyML Auto ML tinyML Auto ML **Tutorial with Nota Al Tutorial with Neuton** 

> 336 views • 2 months ago













tinyML Auto ML Forum

tinyML Challenge 2022: Smart weather...

378 views • 2 months ago

tinyML Talks South Africa - What is... 214 views •

2 months ago

2 months ago

448 views • 2 months ago

tinyML Talks: The new tinyML Talks Shenzhen: 分享主题... Neuromorphic Analo...

> 159 views • 2 months ago

tinyML Auto ML Forum - Paneldiscussion

190 views • 2 months ago

- Demos 545 views •

2 months ago





EMEA 2023

https://www.tinyml.org/event/emea-2023

More sponsorships are available: <a href="mailto:sponsorships@tinyML.org">sponsorships@tinyML.org</a>





#### **Reminders**

Slides & Videos will be posted tomorrow





tinyml.org/forums

youtube.com/tinyml



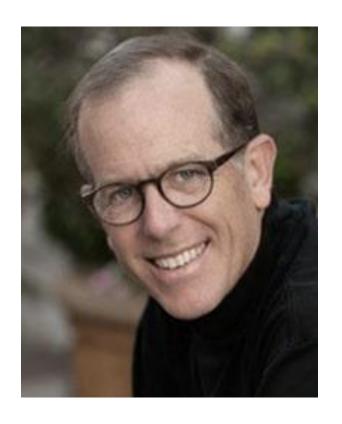
Please use the Q&A window for your questions





#### **Host of the Trailblazers Series**

#### **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.



## **Today's Guest**

#### **Kishore Manghnani**



Kishore Manghnani has over 25 years of management experience working at various semiconductor, systems and software companies in Silicon Valley. He is the co-founder and CEO of Shoreline IoT Inc., a startup developing AI and IoT solutions for industrial and commercial applications. Before starting Shoreline Kishore was Vice President and General Manager at Marvell, where he was responsible for the wireless IoT platform, Smart Home and Wi-Fi business units. Prior to Marvell he worked in various executive roles at Terayon, TeraLogic, LSI Logic and Maxtor. Kishore holds an MBA from Santa Clara University and an MSEE from University of Hawaii.



## Copyright Notice

This multimedia file is copyright © 2023 by tinyML Foundation. All rights reserved. It may not be duplicated or distributed in any form without prior written approval.

tinyML® is a registered trademark of the tinyML Foundation.

www.tinyml.org



## Copyright Notice

This presentation in this publication was presented as a tinyML® Talks webcast. The content reflects the opinion of the author(s) and their respective companies. The inclusion of presentations in this publication does not constitute an endorsement by tinyML Foundation or the sponsors.

There is no copyright protection claimed by this publication. However, each presentation is the work of the authors and their respective companies and may contain copyrighted material. As such, it is strongly encouraged that any use reflect proper acknowledgement to the appropriate source. Any questions regarding the use of any materials presented should be directed to the author(s) or their companies.

tinyML is a registered trademark of the tinyML Foundation.

www.tinyML.org