

tinyML[®] Foundation

OVERVIEW



Pete Bernard, Executive Director



- EDGECELSIOR - Founder & Principal
- Microsoft - 18 years
 - Senior Director - Azure Edge HW/5G
 - Principal Group PM – Windows & Devices Products
- Silicon Valley - 14 years
 - Insignia Solutions - Chief Product Officer
 - E Color - VP Products
 - Phoenix Technologies – Director of Technology
- Seven patents in security, imaging, smart wearables, and music streaming



BOSTON
UNIVERSITY

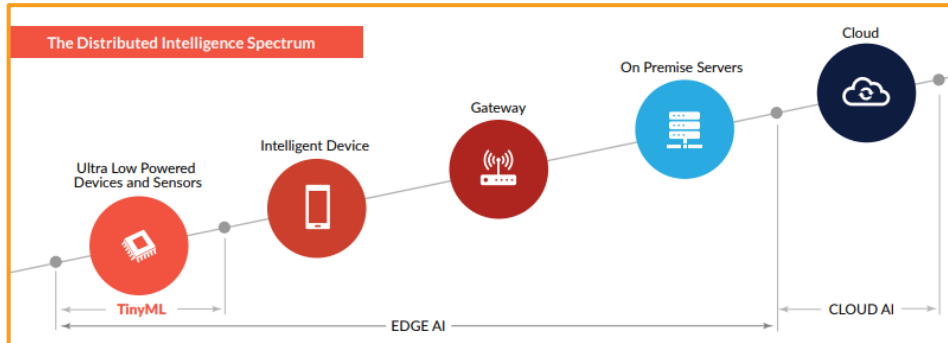
COLLEGE OF ENGINEERING

Forbes

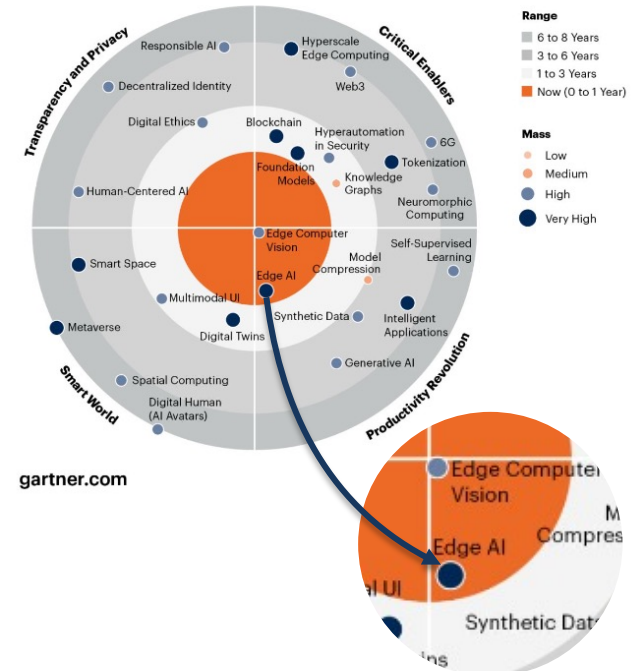
Technology
Council

Edge AI is Transforming the Digital Landscape

- Advances in semiconductors, connectivity and software have enabled a wave of AI on devices that connect to the cloud
- These capabilities are transforming healthcare, agriculture, manufacturing, retail and more...
- They take the form of low power sensors, cameras/imaging devices, gateways and robotics platforms – running AI Models with cloud-to-edge management and security



2023 Gartner Emerging Technologies and Trends Impact Radar

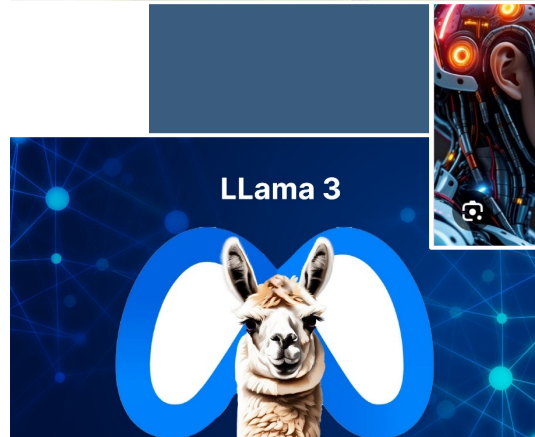


The State-of-the Art is Moving Quickly

- AI models can run as small as 5kb on sensors using only milliwatts – solar and battery powered
- Low power wireless connectivity such as LoRA and 5G Redcap are enabling far-flung deployments
- Generative AI models coming to the edge – Meta’s LLAMA model shrank 10x in 9 months – for rich sensor descriptions and enhanced telemetry
- “Observational learning” is enabling robotics platforms on the edge with Generative AI

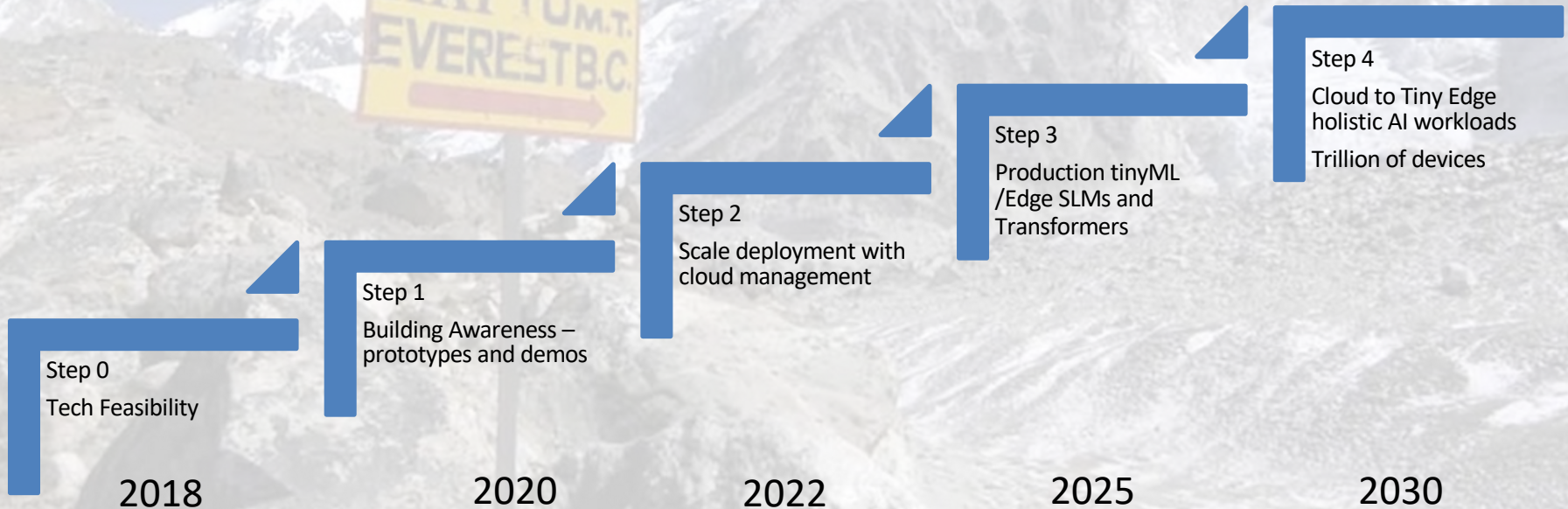


“up to 99% of use cases could be addressed using SLMs . . . 2024 will be the year of the SLM.”
– CEO of Hugging Face





Climbing Up tinyML Mountain





tinyML[®] Foundation is “what’s next” in Edge AI



20.5k tinyML meetup members: **50** groups in **41** countries



In-person symposiums / summits in the **US, EMEA, ASIA**



12k+ YouTube subscribers, **450k+** views;
20k+ members/followers on LinkedIn



Deep academic partnerships - **~100k** students taking tinyML classes worldwide



100+ sponsors across Technology and Fortune 500

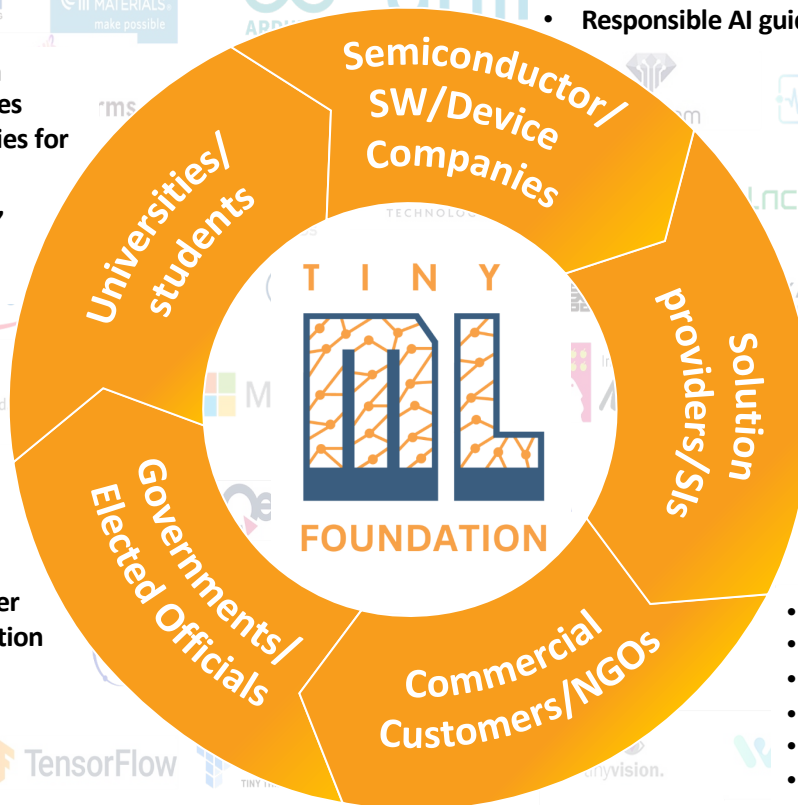
A 501c3 charitable organization



Community Diversity

- Community of R&D/academia
- Coursework/training for classes
- Access to technology companies for platforms, tools
- Opportunities for mentorship, internship, career paths
- AI for Good volunteering

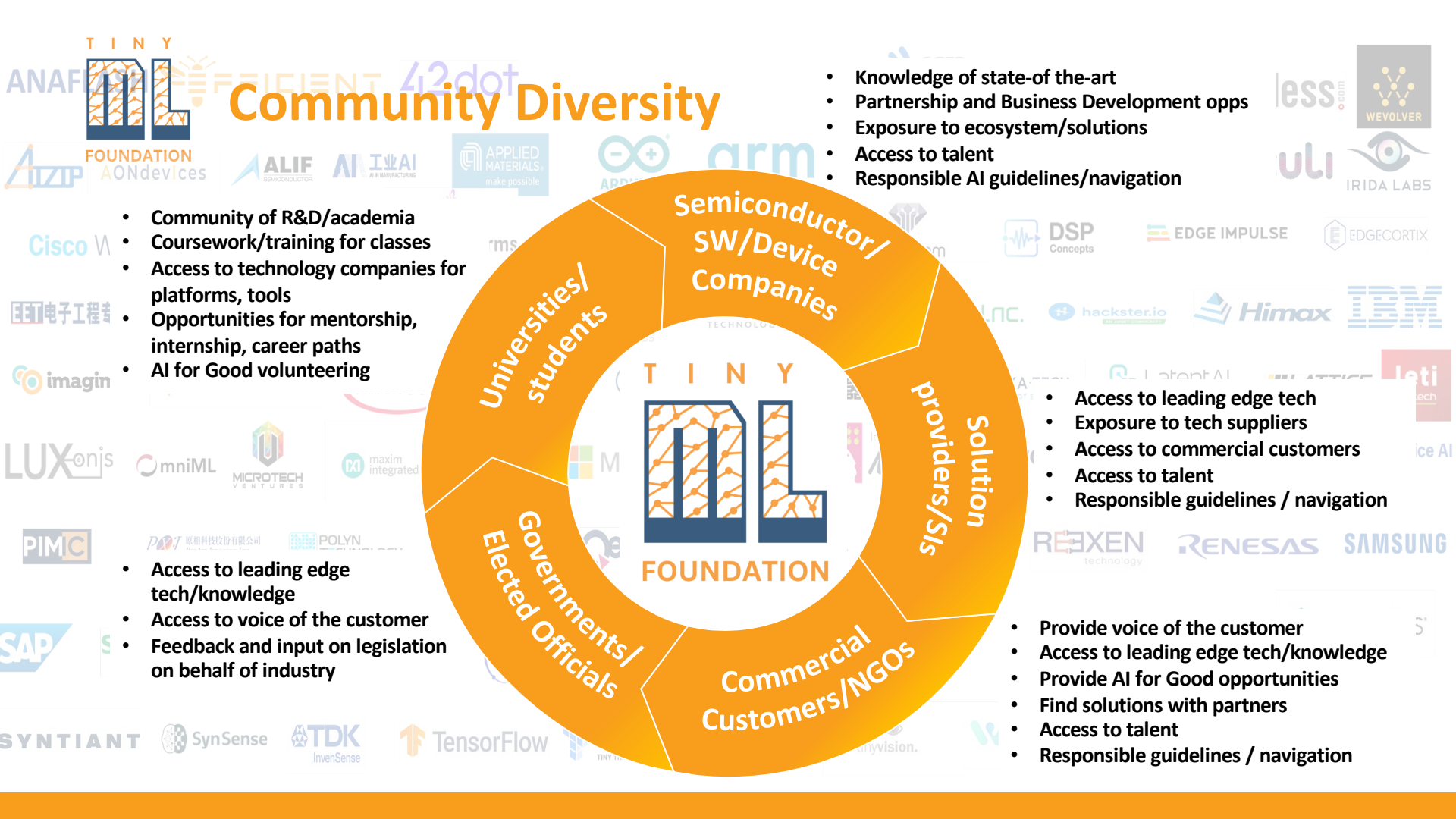
- Access to leading edge tech/knowledge
- Access to voice of the customer
- Feedback and input on legislation on behalf of industry



- Knowledge of state-of-the-art
- Partnership and Business Development opps
- Exposure to ecosystem/solutions
- Access to talent
- Responsible AI guidelines/navigation

- Access to leading edge tech
- Exposure to tech suppliers
- Access to commercial customers
- Access to talent
- Responsible guidelines / navigation

- Provide voice of the customer
- Access to leading edge tech/knowledge
- Provide AI for Good opportunities
- Find solutions with partners
- Access to talent
- Responsible guidelines / navigation





Upcoming Community Events



"It is my first time attending the tinyML Summit, and the experience has been fantastic. I had the opportunity to network with top edge ML researchers from both industry and academia, discussing the current and future challenges of implementing ML on low-power devices..."

– Wilfredo Lugo-Beauchamp,
Assistant Professor, University of Puerto Rico



Partnership Opportunities

Technology Companies



Understand state-of-the-art, develop cutting-edge partnerships, engage with customers and solution providers, marketing value

Commercial Companies / NGOs



Discover solution and technology partners, Edge AI technology trends, talent pipeline

Academic Institutions



Collaboration on AI R&D, mentorship/ internship opps for students in technology industry



THANK YOU.

tinyml.org

Image courtesy: Prof. Vijay Reddi and his Harvard team

