# oneAPI State of the Union

Scott Apeland Senior Director Developer Ecosystem Program

oneAPI DevSummit



# Welcome

## oneAPI Ecosystem

































































































CoEs















## oneAPI for Everyone



oneAPI Innovator Program



István Z Reguly oneAPI Innovator



Abhishek Nandy



Kazi Haque

# Student Ambassadors for oneAPI



Harvey Johnson oneAPI Student Ambassador



Joshua Shiells oneAPI Student Ambassador

## oneAPI for Everyone



### Innovator & Certified Instructor Program



Yinkui Zhang - Well-known operating system kernel expert and author of "Software Debugging".



Yongwei Wu - Chief technical consultant at Boolan and Well-known C++ expert



Professor Weidong Zhao from Fudan University



Student Ambassadors Program





Shiyang Li & Yuting Peng from Nankai Universiity





Jiacheng Wan & Ce Sun from University of Science & Technology of China

#### Centre of Excellence



Prof. Yuejian Fang, School of Software and Microelectronics Peking University

# What's New?

### **SYCLomatic**



- Open source tool to help migrate CUDA code to oneAPI/SYCL
- 2832 contributors
- Just added support for 100+ CUDA APIs
- Working on SYCL 2020 support

https://github.com/oneapi-src/SYCLomatic







Latest Intel CPUs & GPUs

Accelerated Development

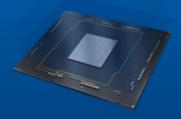
Optimization Support



# Intel® Developer Cloud

cloud.intel.com

## Small Model Inferencing



#### Small VM

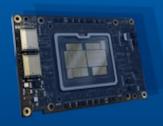
Intel® Xeon® Scalable Processors

Up to 7B Parameters

Coming November

#### Small Model

Inferencing & Fine-Tuning



#### Medium or large VM

Intel® Xeon® Scalable Processors or Intel GPUs

Up to 20B Parameters

Coming November

# Large Model Inferencing Small Model

Inferencing & Fine-Tuning



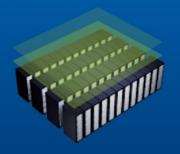
#### Full System

Intel® Gaudi 2 or Intel GPU system

Up to 50B Parameters

Available Today

### Large Model



#### **Full Cluster**

Multiple Intel® Gaudi 2 systems

Hundreds of Billions Parameters

Coming Q4'23



## intel.

## liftoff

### Helping Early-Stage Al Startups Build Al Solutions



# Community Inspired



### Linux Foundation announced the formation of the

## **Unified Acceleration Foundation**



# **Get Inspired!**



Industry and community showcase of projects

#### awesome-oneapi

An Awesome list of oneAPI projects

A curated list of awesome oneAPI and SYCL projects for solutions across industry and community. Inspired by awesome-machine-learning.

#### 

oneAPI is an open, cross-industry, standards-based, unified, multiarchitecture, multi-vendor programming model that delivers a common developer experience across accelerator architectures – for faster application performance, more productivity, and greater innovation. See, <a href="https://oneapi.io/">https://oneapi.io/</a> for more information.

#### **Table of Contents**

- 1. Al Computer Vision
- 2. Al Data Science
- 3. Al Machine Learning
- 4. Al Natural Language Processing
- 5. Al Frameworks and Toolkits
- 6. Autonomous Systems
- 7. Data Visualization and Rendering
- 8. Energy
- 9. Gaming
- 10. Manufacturing
- 11. Mathematics and Science
- 12. Tools & Development
- 13. Tutorials





V

## intel. certified developer

**MLOps Professional** 

## Intel Certified Developer

Early Access today!
General Availability Q4

https://developer.intel.com/certified



# oneAPI Community Programs

Student Ambassadors



Innovator Program



Intel® Liftoff for Start-ups



**Educator Program** 



Join our community!

# Thank You