

AI Acceleration Platform

Open, Platform Compatible Analytics Architectures



intel®

Bob Gaines  
Americas HPC AI Solutions Architecture

# Enabling the AI Ecosystem

Drive new opportunities and key business outcomes with optimized performance using the modern software tools preferred by AI developers

**Open**  
Programmability



PyTorch TensorFlow  
python Hugging Face  
UXL SYCL

**Choice**  
Compatibility



oneAPI OpenVINO  
SYCLomatic OpenXLA  
OpenAI Triton MLIR

**Trust**  
AI inference

**Secure AI**  
Secure workloads  
Secure models  
Secure data in use

**Scaled**  
Develop and test

Intel® Tiber™ Developer Cloud  
(formerly; Intel® Developer Cloud)

[cloud.intel.com](https://cloud.intel.com)

Small, medium and large models

Full system, full cluster

Latest Intel CPUs, accelerators and software

Open, accelerated, connected computing for AI

Multivendor Multiarchitecture

Hardware / Architecture



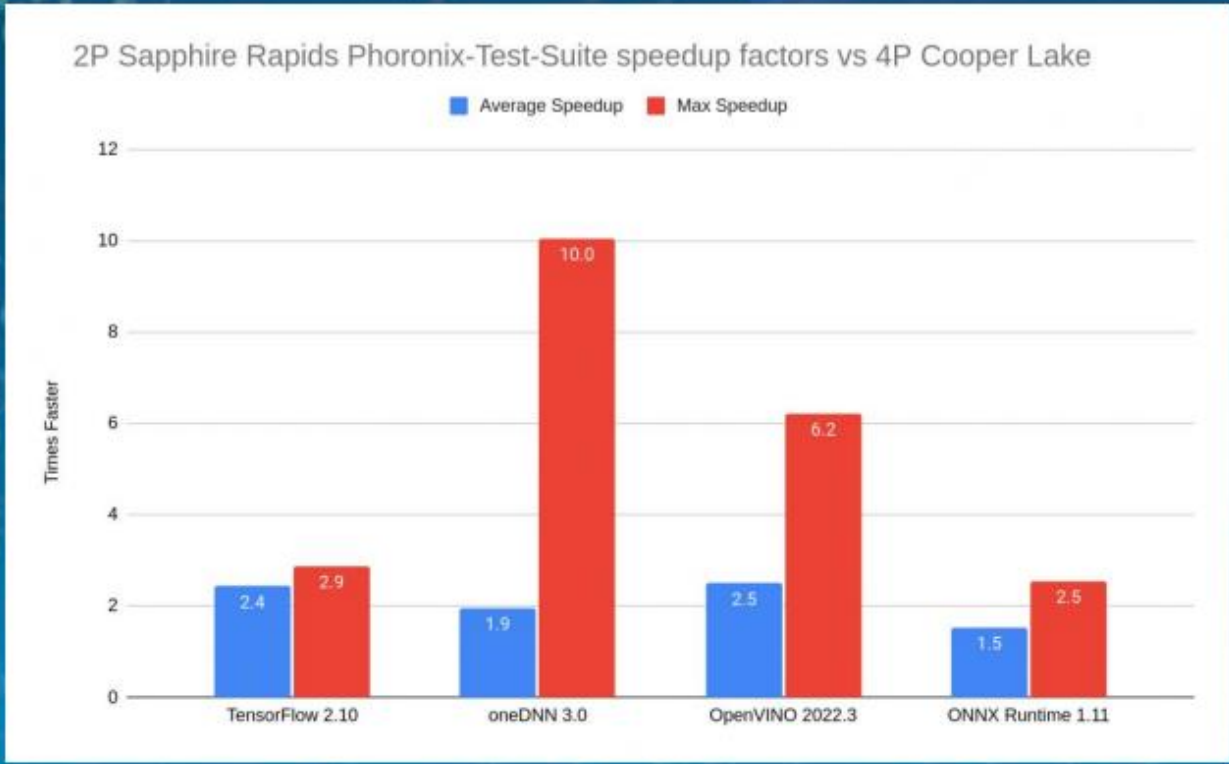
intel XEON GAUDI GPU GPU CORE ULTRA ARC ETHERNET



# AI Workload: Red Hat on Intel® Xeon® Scalable Processors

Red Hat Enterprise Linux achieves significant performance gains with 4th Generation Intel® Xeon® Scalable Processors

## Intel® AMX



Our results show 4th gen speedup factors ranging from an average of **1.5x** up to **10x faster**<sup>1</sup>

NOT STAC BENCHMARKS

# Commitment to Open, Scalable Acceleration

Freeing the Developer Ecosystem from the Chains of Proprietary Software



Unified Acceleration Foundation

**Linux Foundation governed** open industry foundation driving a vendor-neutral software ecosystem for multiarchitecture accelerated computing

**Founding Members:** ARM, Fujitsu, Google Cloud, Imagination Tech, Intel, Qualcomm, Samsung, VMware

**oneAPI Specification** ([oneAPI.io](https://oneapi.io)) is the starting point



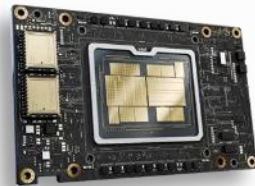
**Open, Standards-based, Multiarchitecture Programming**

Performance | Productivity | Freedom from Vendor Lock-In

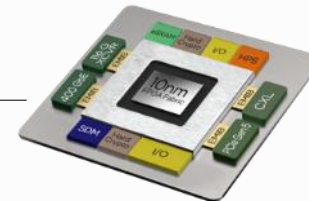
CPU



GPU



FPGA

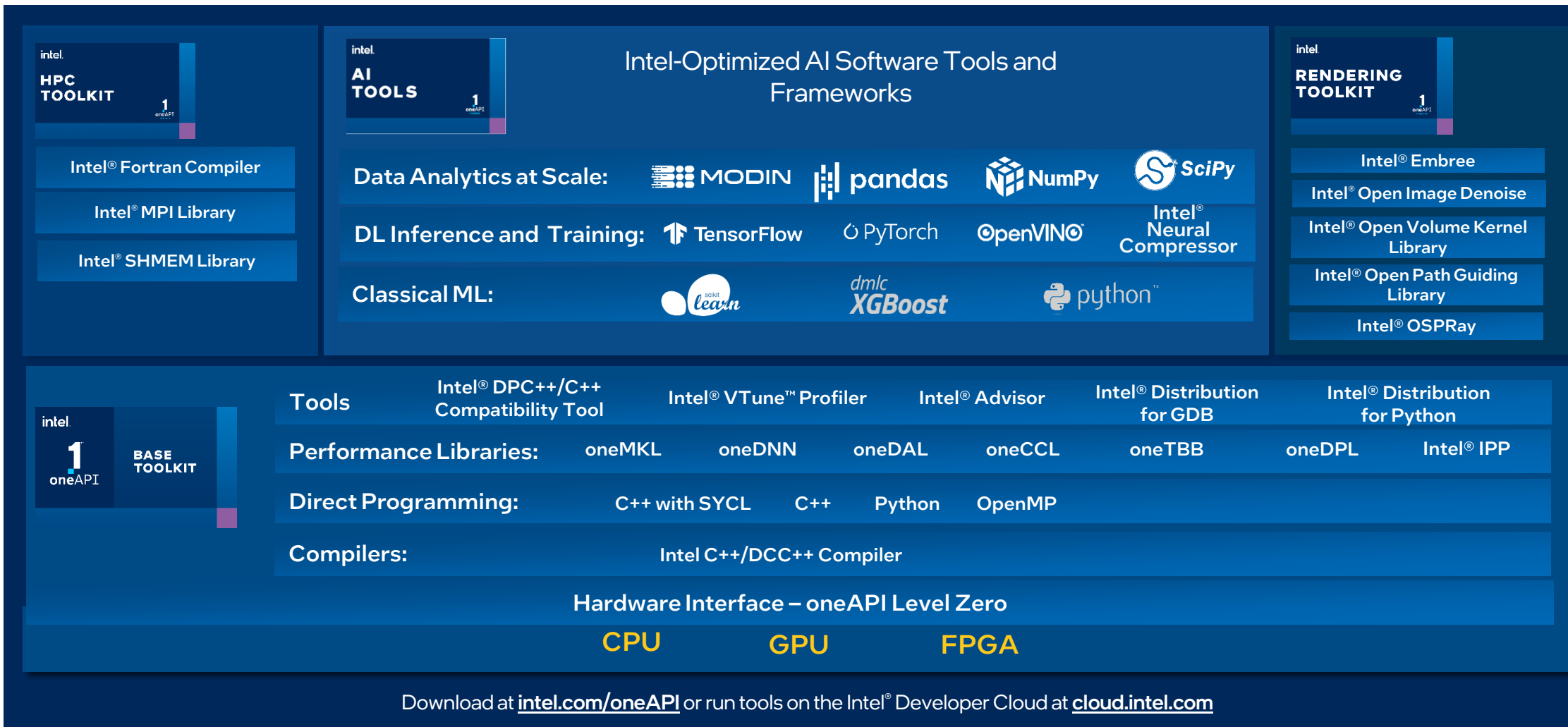


Other Accelerators



# Intel Software Developer Tools

Flexible, Comprehensive, Open Software Stack – Powered by oneAPI

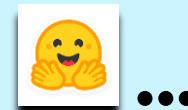
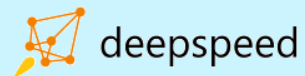


Download at [intel.com/oneAPI](https://intel.com/oneAPI) or run tools on the Intel® Developer Cloud at [cloud.intel.com](https://cloud.intel.com)

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# Seamless ...Transitioning

Performant AI Code with Minimal Changes



**1**  
oneAPI

Unified Programming Model

Intel® Gaudi® Software Suite

**1**  
oneAPI  **UXL**  
Unified Acceleration Foundation

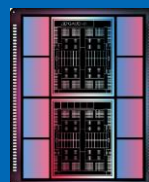
Transitioning Into a  
**Single Software Environment**



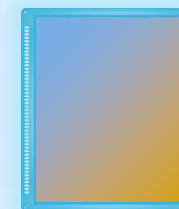
Intel® Data  
Center GPU  
Max Series



Intel®  
Gaudi® 2 AI  
accelerator



Intel®  
Gaudi® 3 AI  
accelerator



Next-Gen  
GPU



Intel® Accelerator  
Compatibility

