Open. Together.
Breaking Barriers in AI:
New Hardware, Standard Platform

Tingwei Huang, Product Management Director, Intel
AI is Not a Workload
AI Enhances Workloads
Open. Together.
Enable Developers to Achieve Their AI Vision
Enable Developers to Achieve Their AI Vision
Intel® Xeon® is the Foundation of AI

Maximize Utilization
running data center and AI workloads side-by-side

Break Memory Barriers
in order to apply AI to large data sets and models

Train Complex Models
through efficient scaling to many nodes

Access Optimized Tools
including continuous performance gains for TensorFlow, MXNet, more

Run in the Cloud
including AWS, Microsoft, Alibaba, Tencent, Google, Baidu, more
Intel® AI Compute Hardware 2019

**DEVICE**
- Automated Driving
- Flexible Acceleration

**EDGE**
- Dedicated Media/Vision
- NNP-I Intensive DL Inference

**MULTI CLOUD**
- NNP-L Intensive DL Training

Open. Together.
Intel® Nervana™ Neural Network Processor

**NNP L-1000** for Deep Learning Training

- **Blazingly Fast Data Access**
  Leverage both on-die SRAM and on-package HBM

- **High Degree of Parallelism**
  Bfloat16 for enhanced performance and convergence

- **New Level of Scalability**
  Massive bi-directional data transfer through on and off chip interconnect

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**OCP Accelerator Mezzanine Module**

**Standard PCIE Module**

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**Open. Together.**
Intel® Nervana™ Neural Network Processor

**NNP I-1000** for Deep Learning Inference

Deep Learning by Design

Intel® 10nm Ice Lake Core

In Production in 2019
Enable Developers to Achieve Their AI Vision
OpenVINO™ Toolkit
Visual Inference and Neural Network Optimization

Write Once, Scale to Diverse Accelerators

Broad Framework Support

High Performance, High Efficiency for Edge Inference

Free Download ➤ software.intel.com/openvino-toolkit
Open Source version ➤ 01.org/openvinotoolkit

Other names and brands may be claimed as the property of others.
VPU = Vision Processing Unit (Movidius)
NAUTA
A Distributed Deep Learning Platform for Kubernetes*

github.com/IntelAI/nauta

Multi-user collaboration
Interactive sessions
Template functionality

Fast training
Batch training
Experiment tracking
Multi-node distribution
Analytics & visualization
using TensorBoard*

Batch inference
Inference deployment
Export to edge devices

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Open Source
Enable Developers to Achieve Their AI Vision
AI Builder Program

200+ Members: Software, System, Service and Solution Providers

Tech Enablement + Co-marketing + Match-making + Investment

https://builders.intel.com/ai
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