

# AI 芯片 - AI 计算体系

## 内容简介



ZOMI



BUILDING A BETTER CONNECTED WORLD

Ascend & MindSpore

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# Talk Overview

## I. AI 计算体系

- 深度学习计算模式
- 计算体系与矩阵运算

## 2. AI 芯片基础

- 通用处理器 CPU
- 从数据看 CPU 计算
- 通用图形处理器 GPU
- AI 专用处理器 NPU/TPU
- 计算体系架构的黄金10年

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## I. 硬件基础

- GPU 工作原理
- GPU AI 编程本质

## 2. 英伟达 GPU 架构

- 从 Fermi 到 Hopper 架构
- Tensor Core 和 NVLink 详解

## 3. GPU 图形处理流水线

- 图形流水线基础
- GPU 逻辑模块划分
- 图形处理算法到硬件

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## I. 华为昇腾 NPU

- 达芬奇架构
- 昇腾AI处理器

## 2. 谷歌 TPU

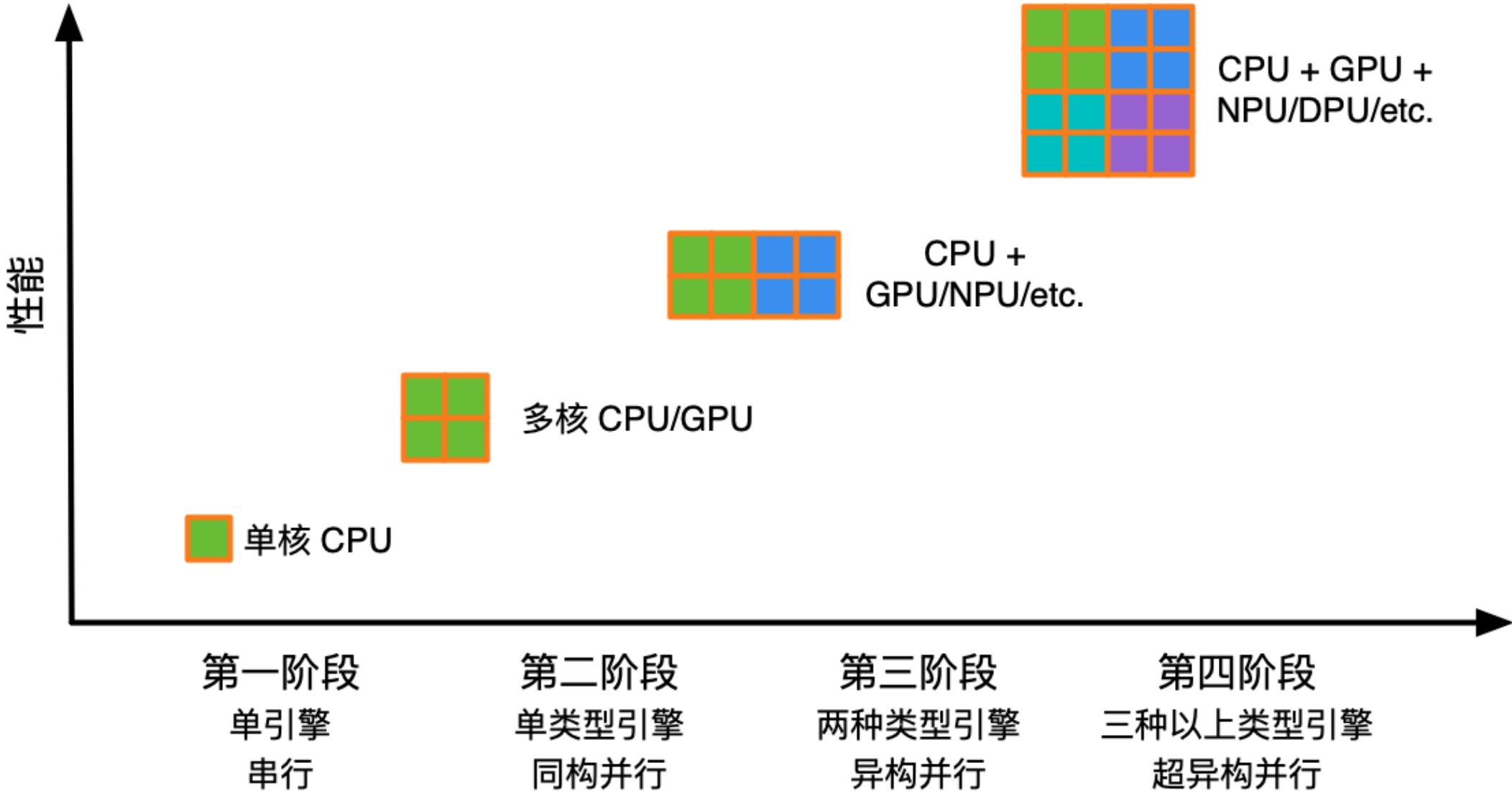
- TPU 核心脉动阵列
- TPU 系列架构

## 3. 特斯拉 DOJO

- DOJO 架构

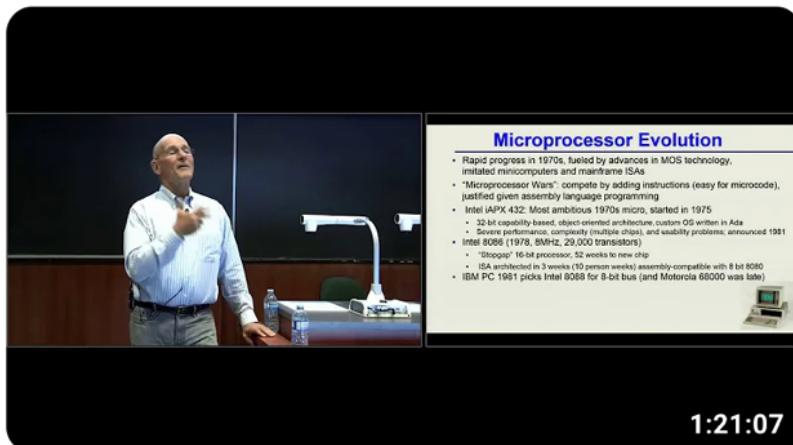
## 4. 国内外其他AI芯片

- AI芯片的思考



# Lessons of last 50 years of Computer Architecture

1. Software advances can inspire architecture innovations.
2. Ultimately the marketplace settles architecture debates.
3. Raising the hardware/software interface creates opportunities for architecture innovation.



David Patterson - A New Golden Age for Computer Architecture: History, Challenges and Opportunities

7.1万次观看 · 3年前



UBC Computer Science

Abstract: In the 1980s, Mead and Conway democratized chip design and high-level language programming surpassed assembly ...



Turing Awards | What is Computer Architecture | IBM System360 | Semiconductors | Microprocessor... 44 个章节 ▾



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