Andes Growth Started with RISC-V, Accelerated by ML

CPU
- Pure-play CPU licensor
- R&D in both Taiwan & North America
- Dual-listed in Taiwan & Europe

- Founding member of RISC-V Int’l
- First to deploy machine learning (RVV)
- Active at all levels of RISC-V
Taking RISC-V Acceleration from the Cloud & Into Small Devices

Ad Recommendations in Social Media

Large Language Model

ADAS Image Classification

Machine Vision

Keyword Detection

Size

Time
ML in the Cloud, Wildest Forecasts May Actually Come True

- ML is now 40% of cloud computing workload
- Large Language Models (LLM) poised to fuel further growth
- Computing cost & power consumption motivate specialized hardware
Licensees Come for Efficiency, Stay for Openness

100% of Andes ML licensees add their instructions to the RISC-V baseline.

RISC-V Allows Users to Add Instructions

100% of Andes ML licensees add their instructions to the RISC-V baseline.
## Many ML Frameworks & Hardware Platforms

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<th>Framework</th>
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Nice Solutions to Reduce the Maze
Encapsulating the Accelerators into RISC-V Instructions ML Compilers Understand

Andes:
1. Delivers high performance RVV
2. Automates adding instructions
3. Optimizes the interaction
Future is Bright with RISC-V & ML/AI

- Insatiable appetite for performance & power improvements
- Rapid evolutions in ML framework, compilers, tools
- RISC-V open ISA as a new computing platform