Mythic

- Full-stack AI processor company
- Power-efficient AI inference for the edge
- Pioneering Analog Compute Engine (Mythic ACE)
- 150+ employees world-wide
- $165M in venture funding through Series C
M1076 Analog Matrix Processor (AMP)

- Powerful **25 TOPS** AI Accelerator featuring **Mythic ACE**
- Dataflow architecture with an array of **76 Mythic AMP™ tiles**
  - Capacity for up to **80M** on-chip weights
  - DNN models completely reside on-chip – no DRAM
  - Provides low-latency deterministic execution of DNN models
- 4-lane PCIe interface with up to 2GB/s bandwidth
- Typical power running complex models ~**3W**
- Manufactured with mature **40nm CMOS** technology
Mythic’s State-of-the-Art

- Embedded flash
  - Meets a long list of product requirements

- 8-Bit Operation
  - Sufficient for the vast majority of computer vision applications

- Larger Arrays
  - 1024x256x4
  - Minimizes operation fragmentation
Current Challenges

Attention Layers

- Multiplies two activations together
- This does not run on compute-in-memory – we need an equivalent structure

Investment in CiM-Targeted NN Research

- CiM systems have different strengths and weaknesses
- Hardware runs software – we need to invest in the software, too!
Future Path and Promises

- Expect to see more hybrid computing
  - Combine the strengths of digital and CiM
  - Requires heterogenous process integration

- Expect to see more focus on software
  - Software is a significant barrier to entry for any new AI processing platform
  - CiM doubles this challenge
Thank you!

mythic-ai.com