



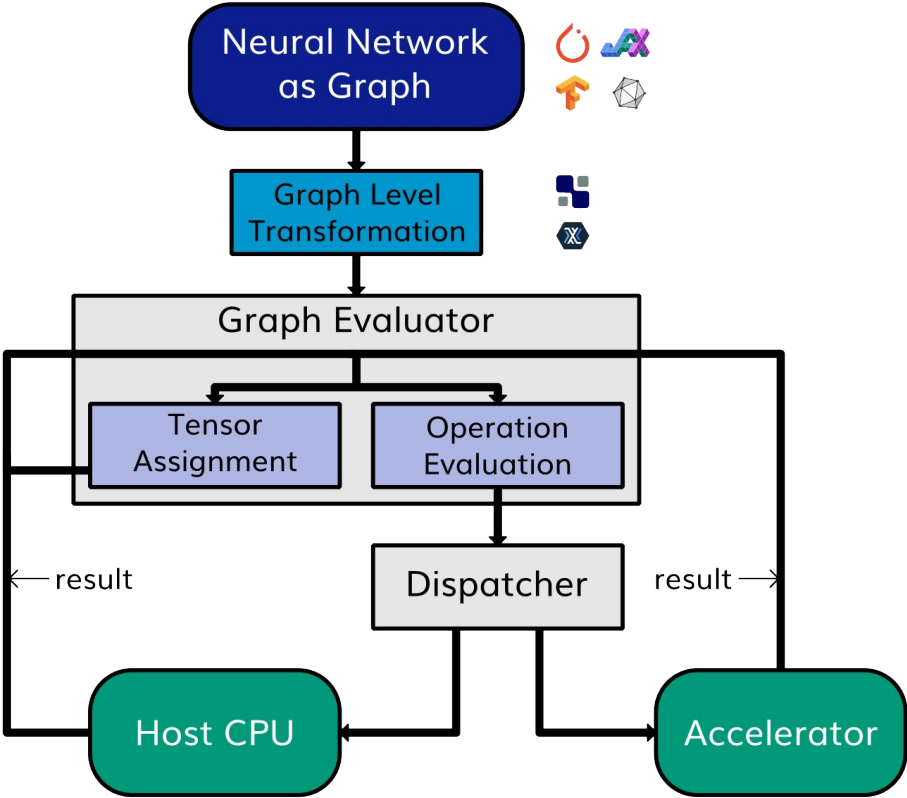
Accelerating AI with Software and Hardware

William Jones
Jeremy Bennett

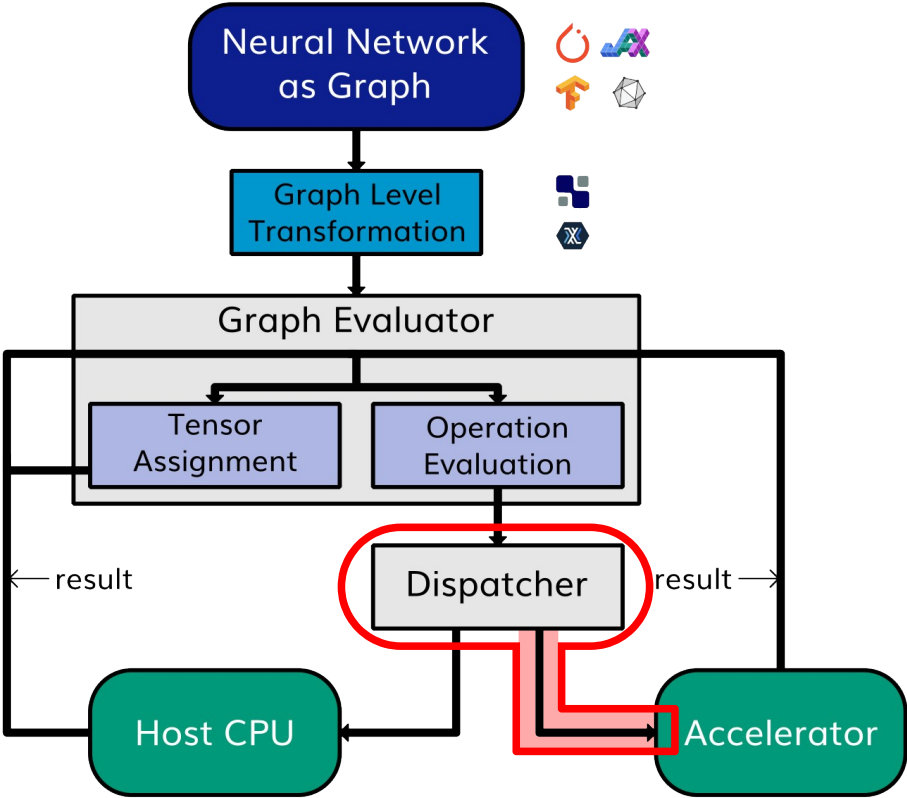
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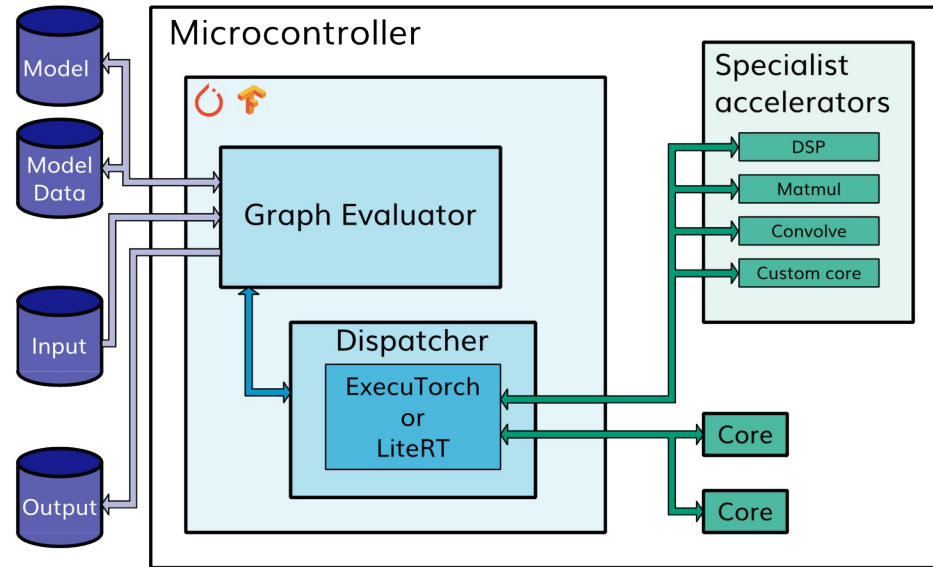
General AI Tool Flow



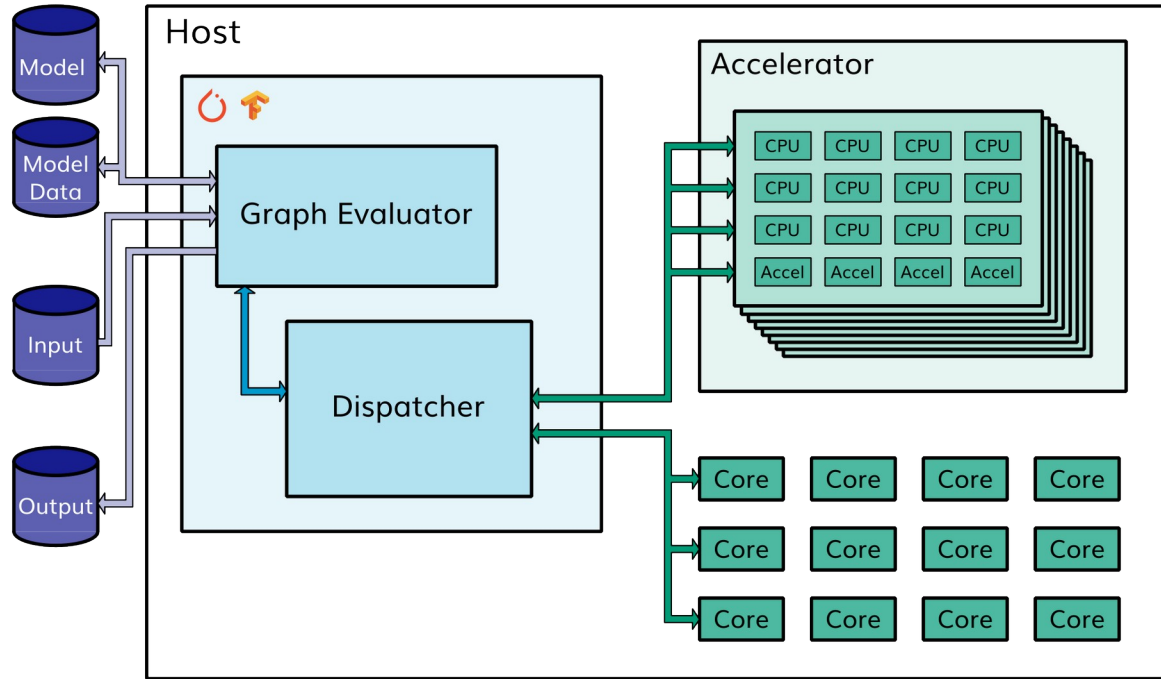
General AI Tool Flow



Microcontrollers and AI



HPC Co-Processor for AI





Use Case: A Demonstration FPGA AI Accelerator

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With Thanks To

James Betson

Lorinc Boer

Reuben Leanage

AoYang Leng

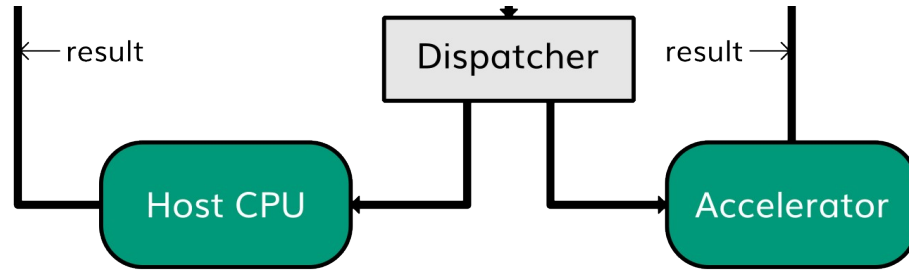
Ze Tan

Tao Zeng

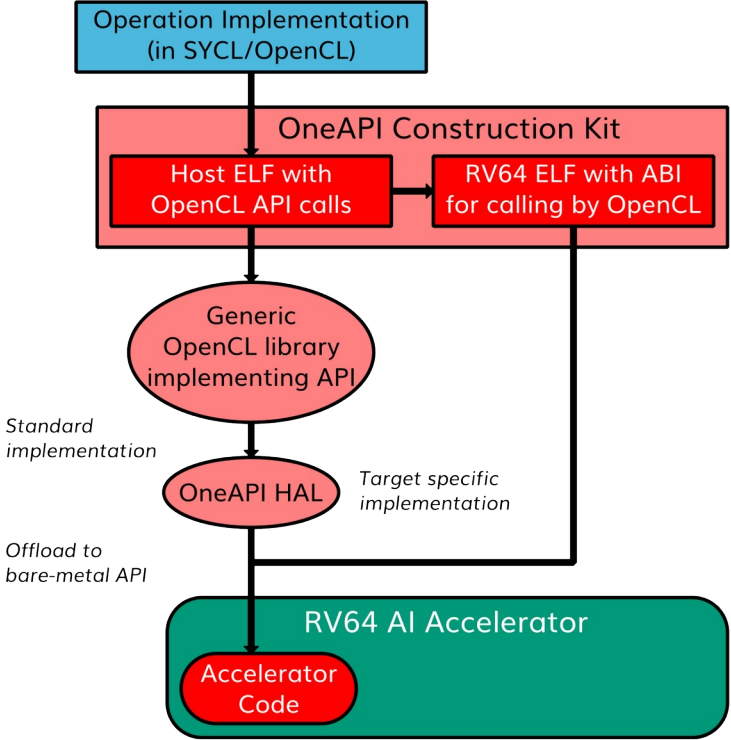
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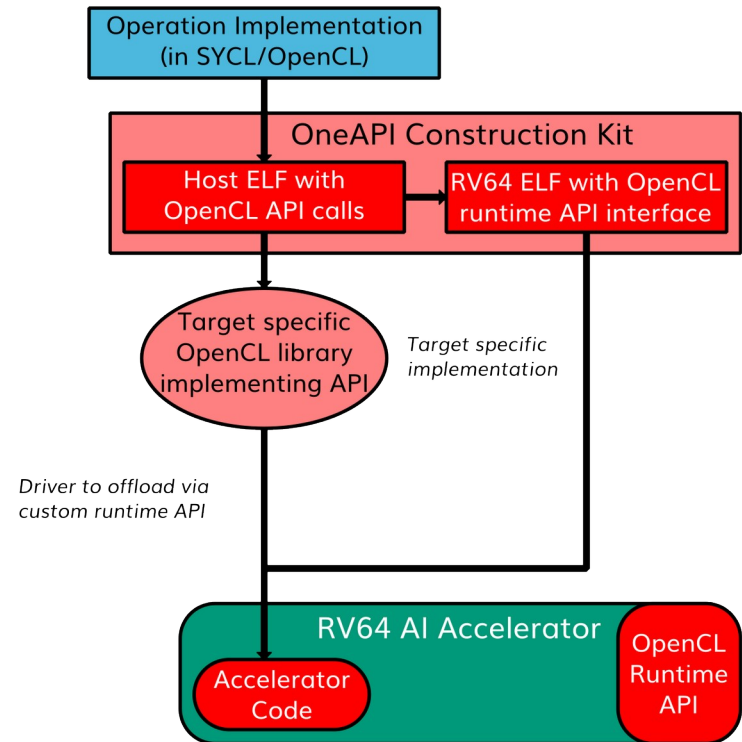
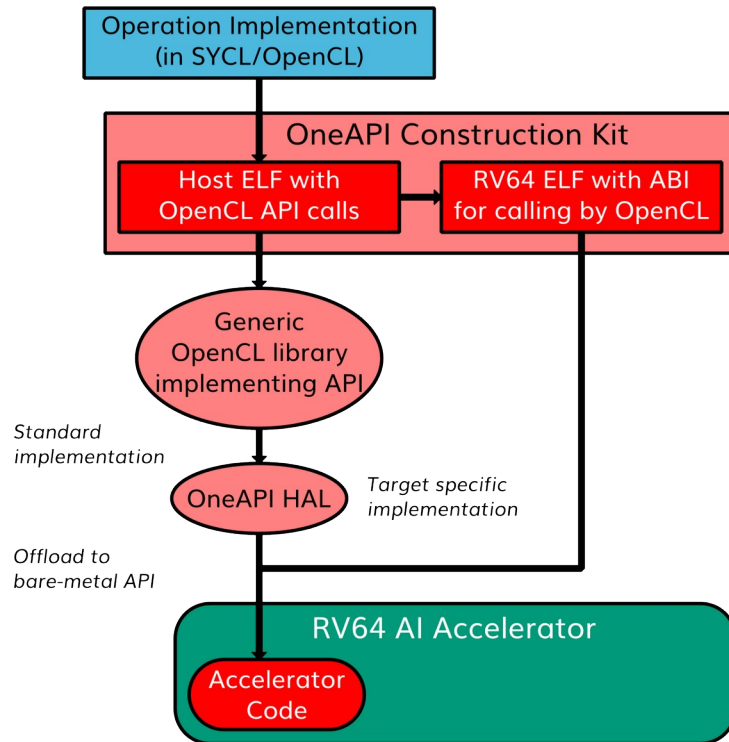
A Refresher



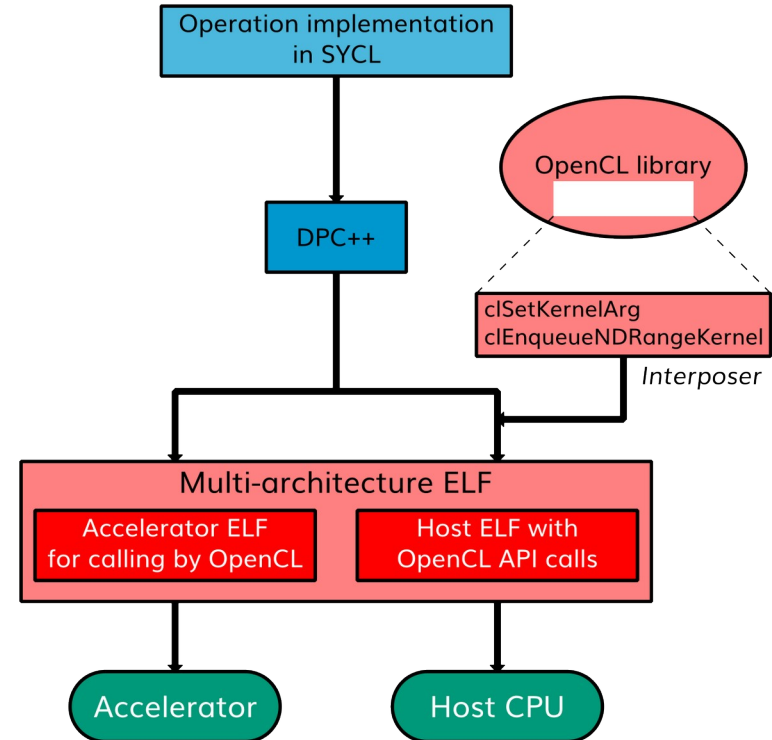
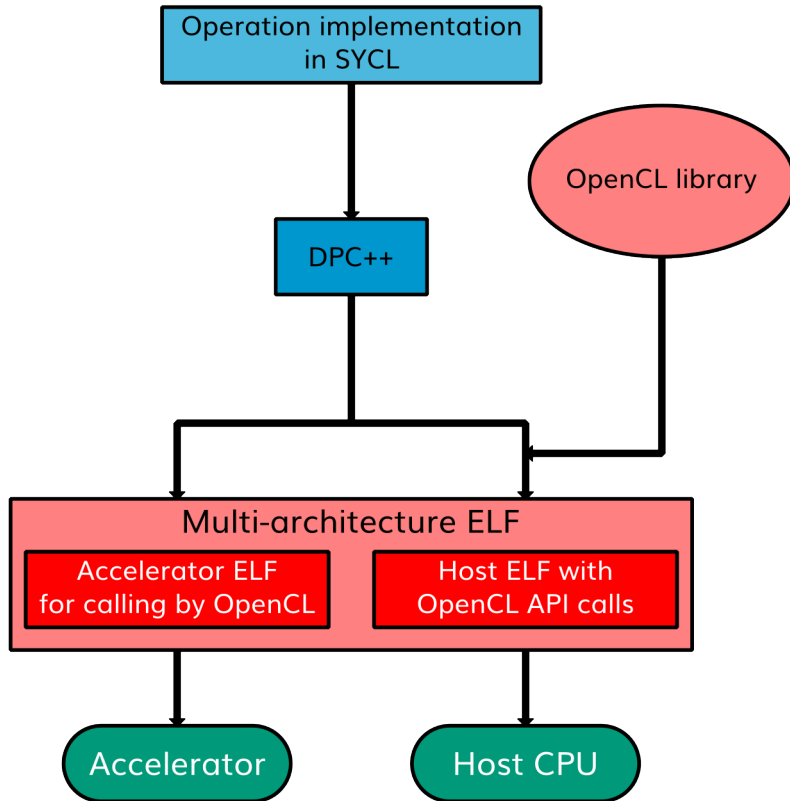
Implementing OneAPI



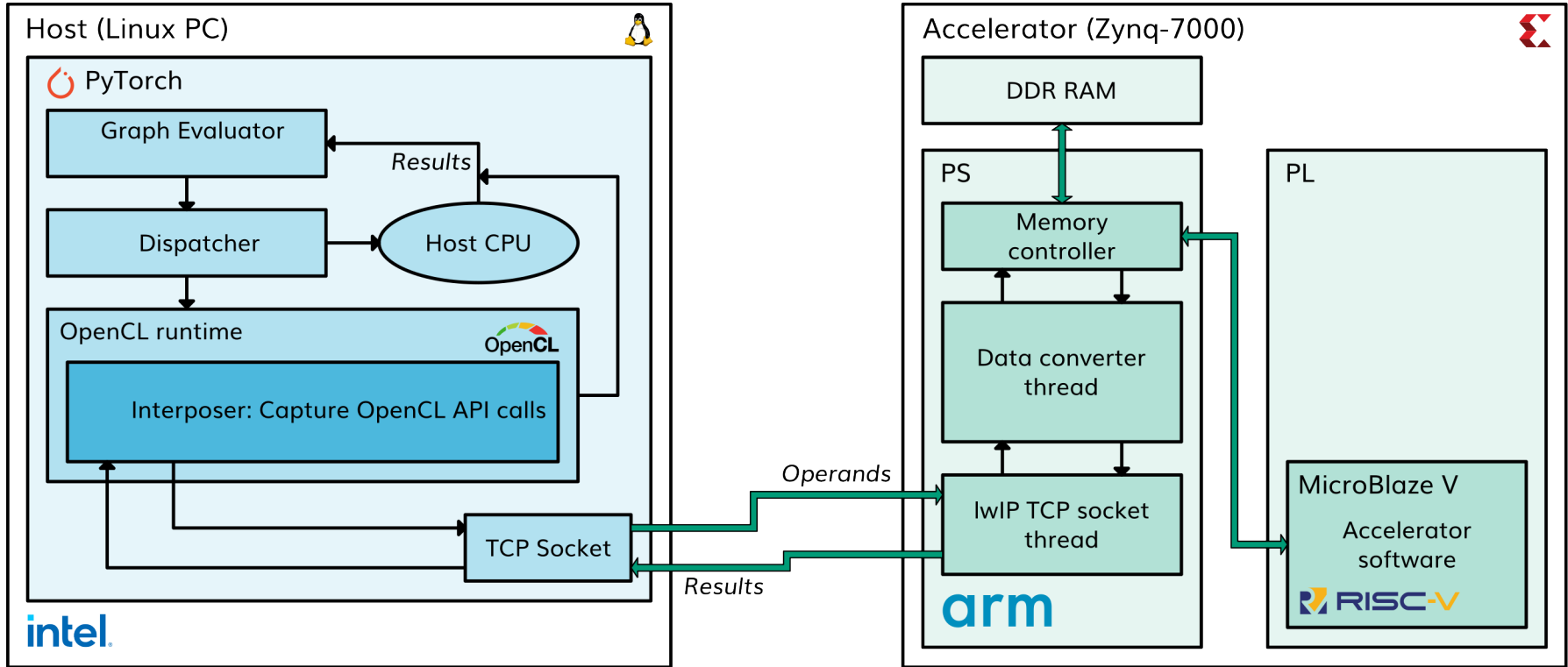
Implementing OneAPI



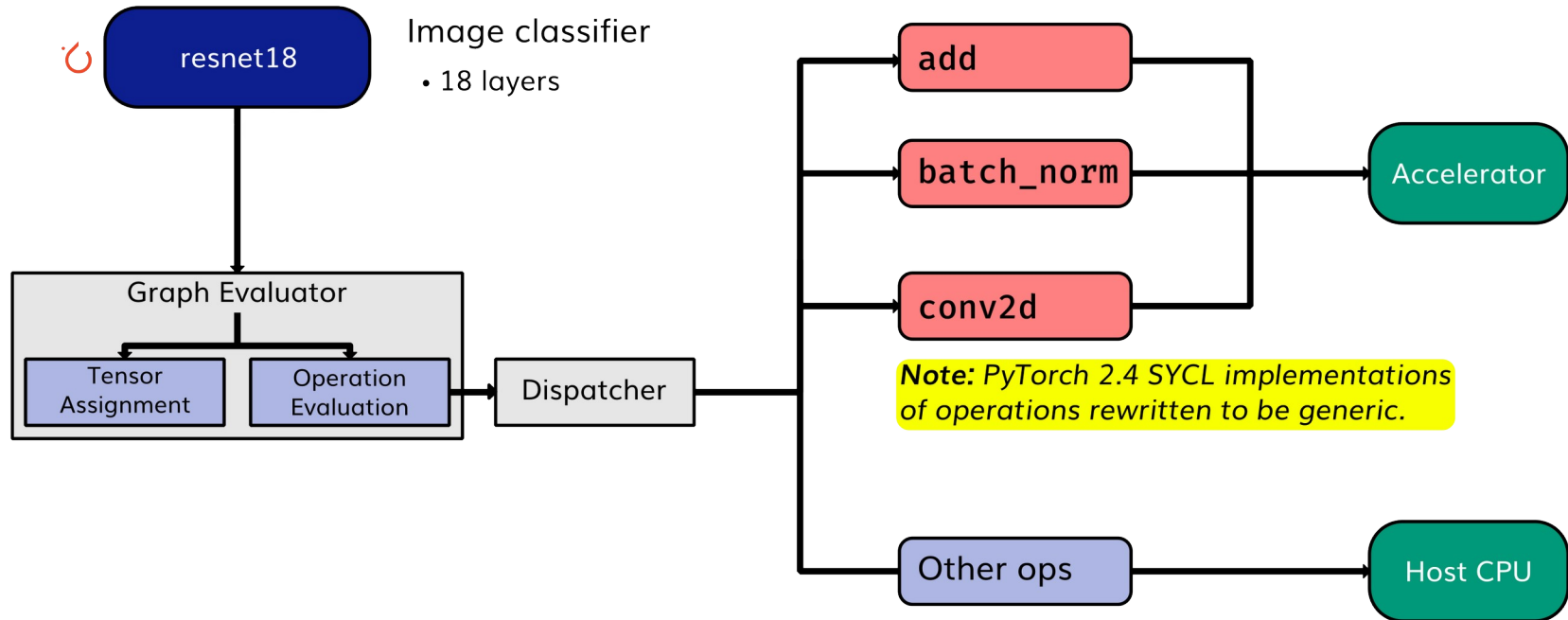
The Interposer



Case Study: Software Architecture



The Benchmark: resnet18





Bringing Up Your Own AI Tooling

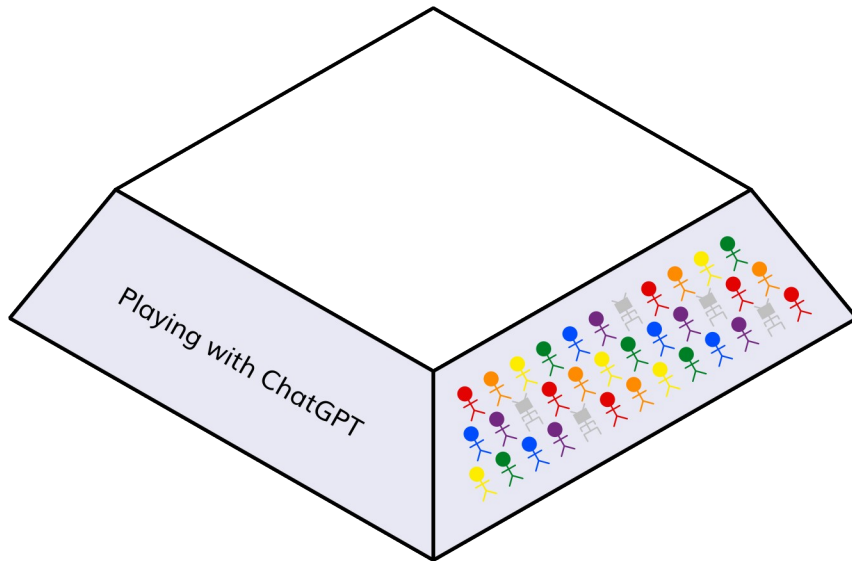
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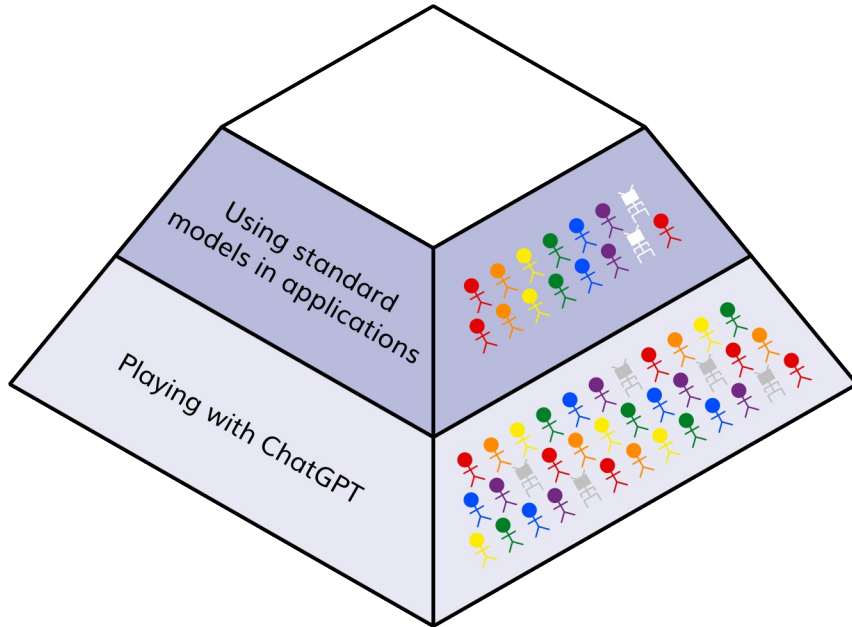
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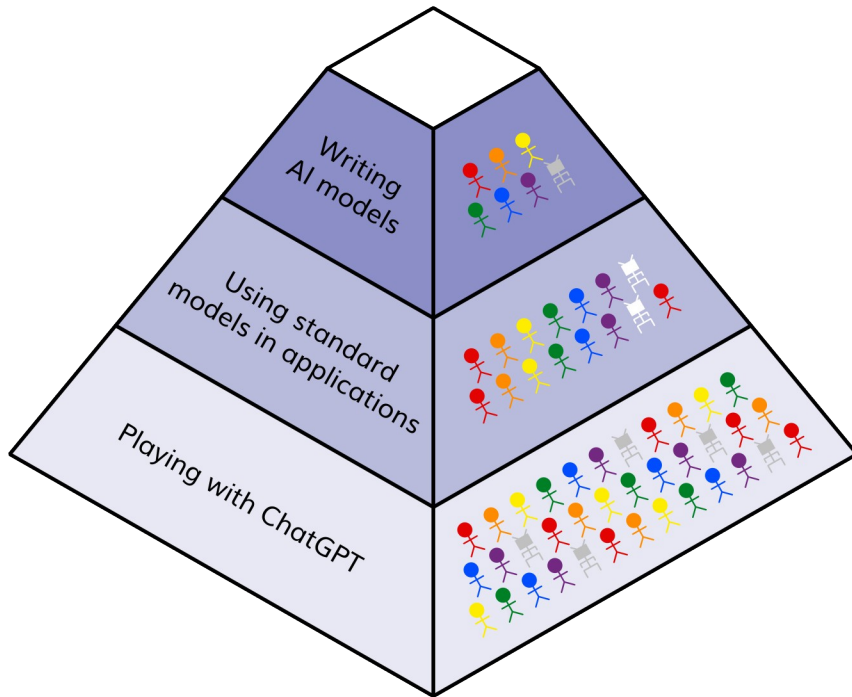
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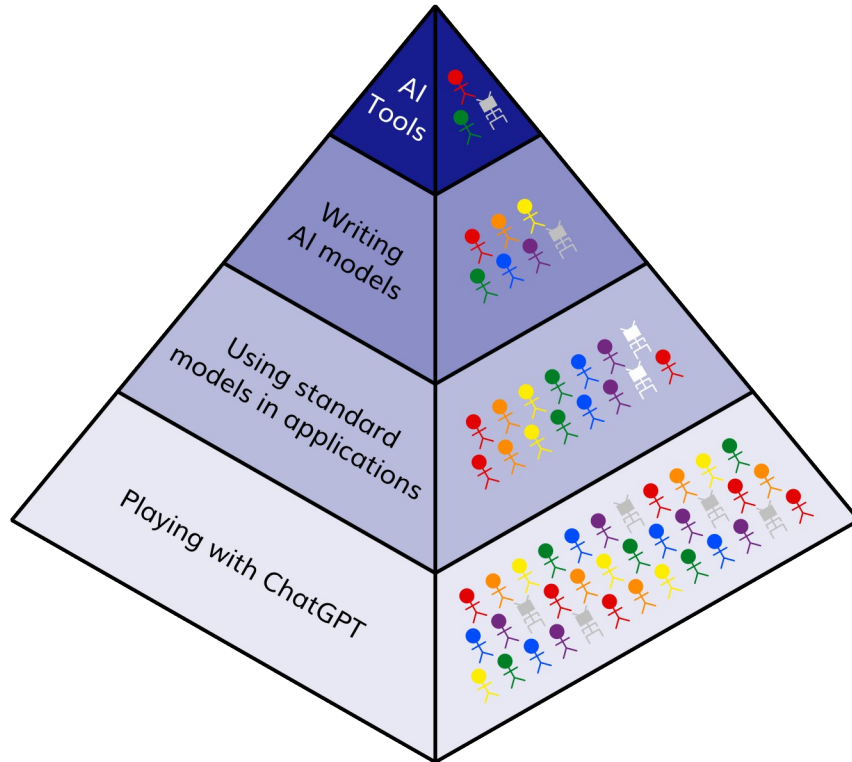
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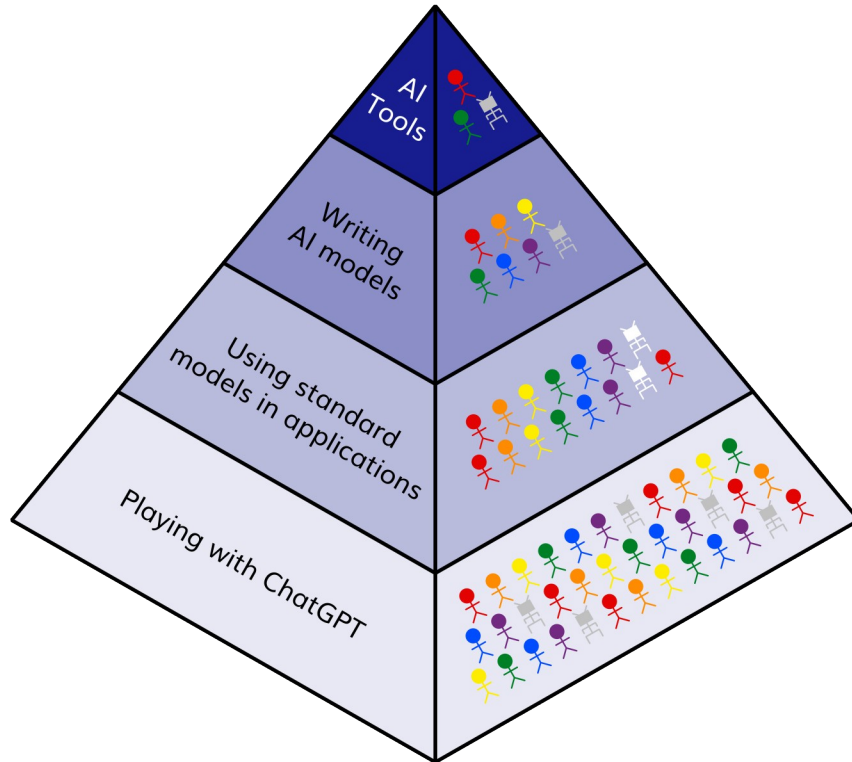
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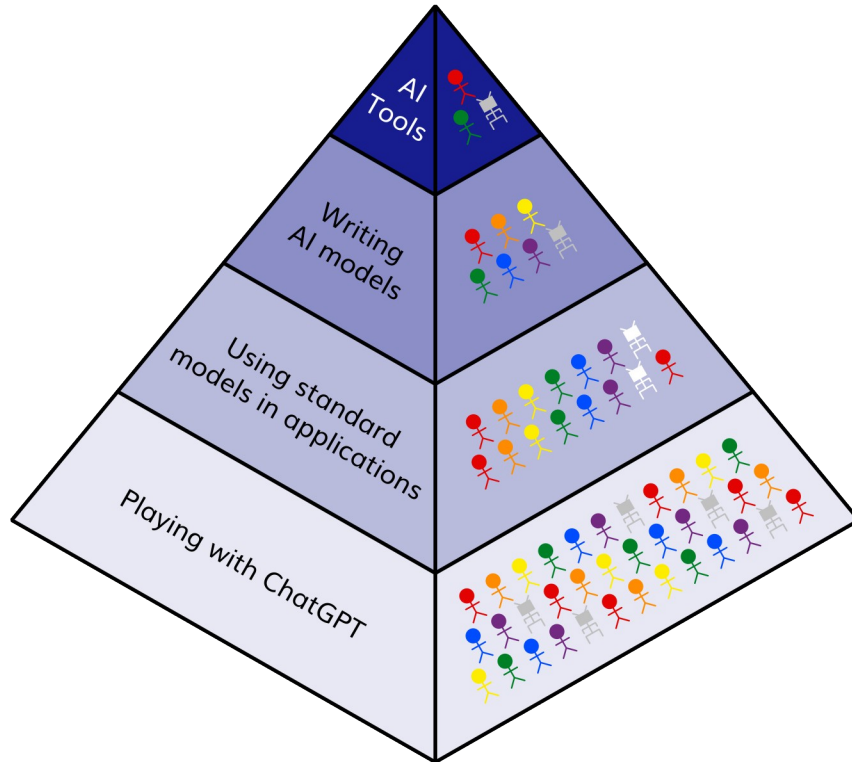


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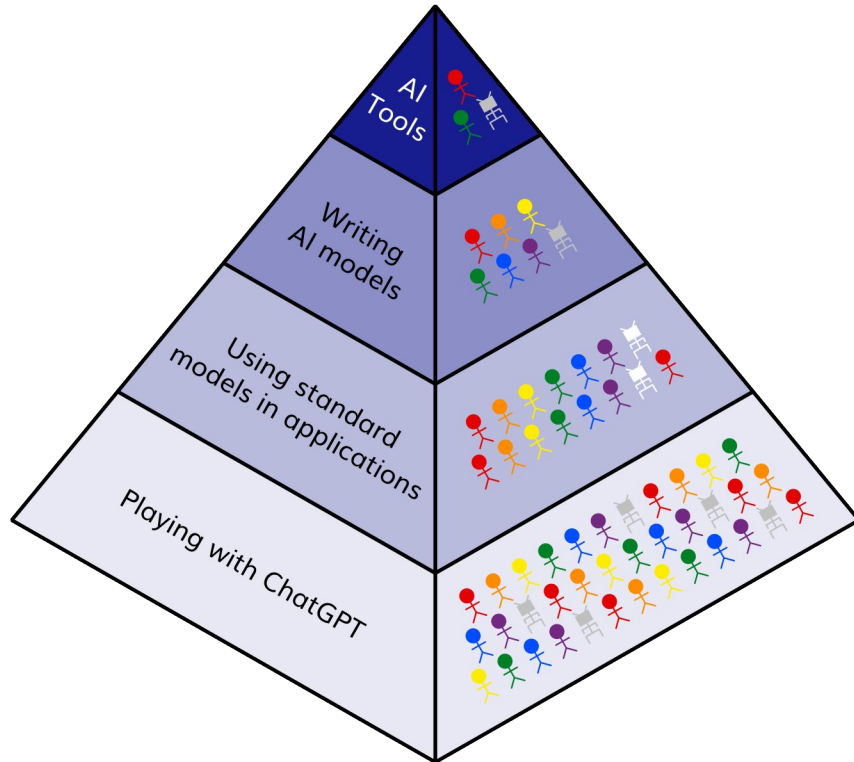
- Executorch is part of PyTorch, LiteRT is part of Tensorflow
 - official tutorials [here](#) and [here](#)

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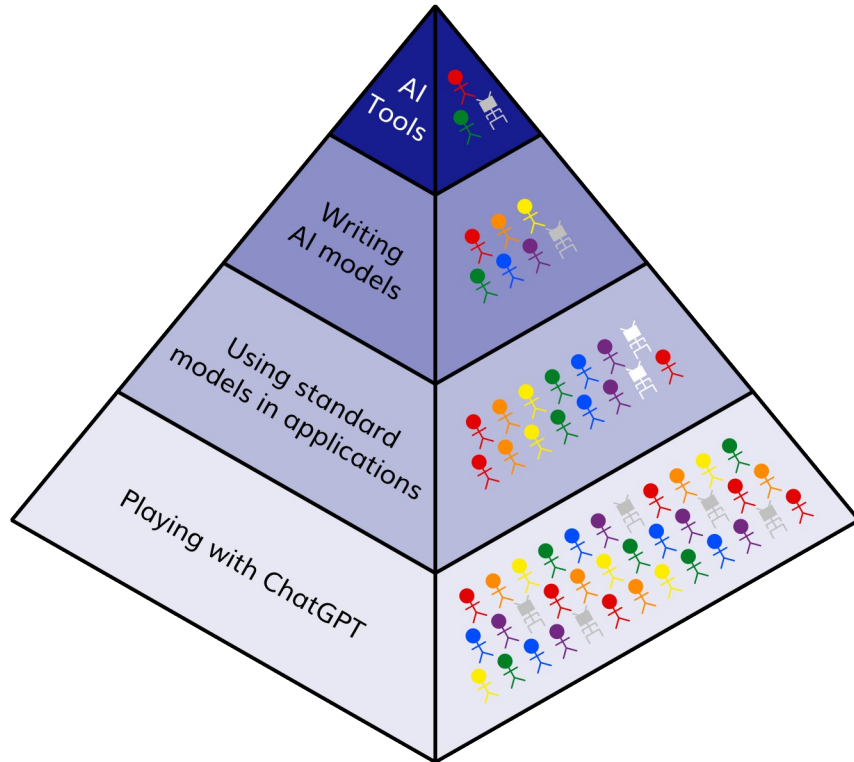
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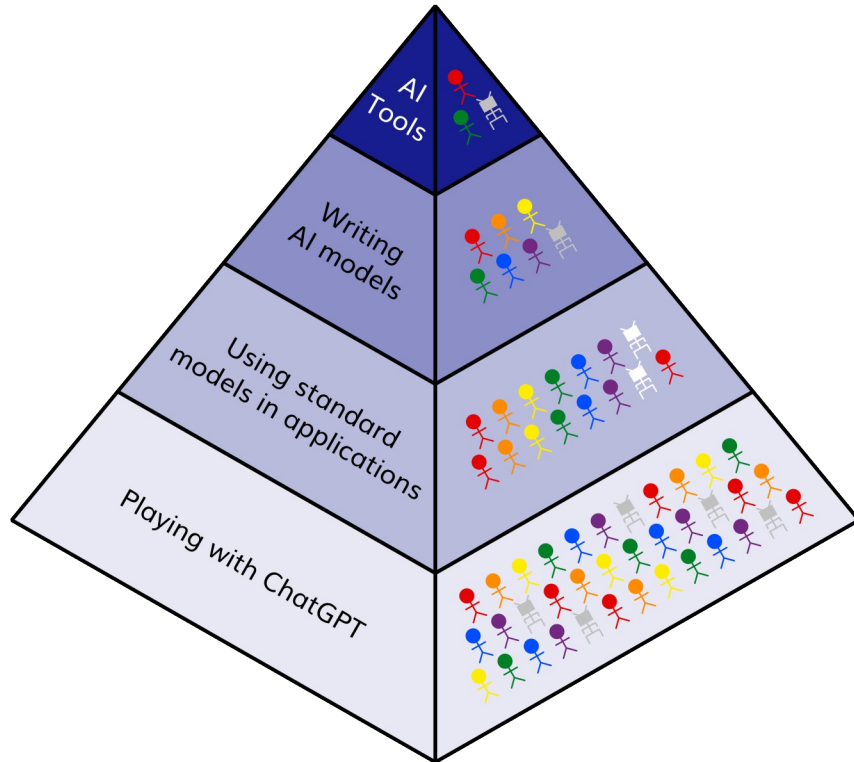
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 - coming in 2025

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- Ask Embecosm for help



Any questions?

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