Advancing AI Computing with Enterprise Software and Infrastructure Solution

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Company Profile



MyelinTek, an AI platform software company, was spun off from the Industrial Technology Research Institute (ITRI) in 2020.

We independently developed the MLOps platform – MLSteam, which is applied in the development, training, and inference management of AI/ML models.

MyelinTek also offers professional services, including AI/ML implementation across various industries, design and implementation of private/public cloud services, software and hardware platform integration, cluster management, and performance optimization.

Our clientele spans sectors such as enterprise, government, healthcare, and transportation.





GenAl Serving

Content Generation

Personalization Suggestion

Design Creativity Content
Summarization
Simplification

Data Augmentation

Al Agent

Prompt

RAG

LLM

- High Computational Requirements
- Real-Time Data Processing Challenges
- Low-Latency Networking Needs
- Integration with Existing Systems
- Data Security and Compliance Concerns

- Reliability and Fault Tolerance
- Monitoring and Managing Complex Al Systems
- Energy Consumption and Efficiency
- Support for AI Frameworks and Tools
- Data Management and Storage



GenAl Serving

Content Personalization Content Design Data Summarization Generation Suggestion Creativity Augmentation Simplification RAG LLM Prompt Al Agent LLM Fine-tuning & Pre-training **LLM Serving** ML Toolchain MLSteam MLOps Platform Large-scale infrastructure Management High Performance Infrastructure Server/Accelerator/Network/Storage



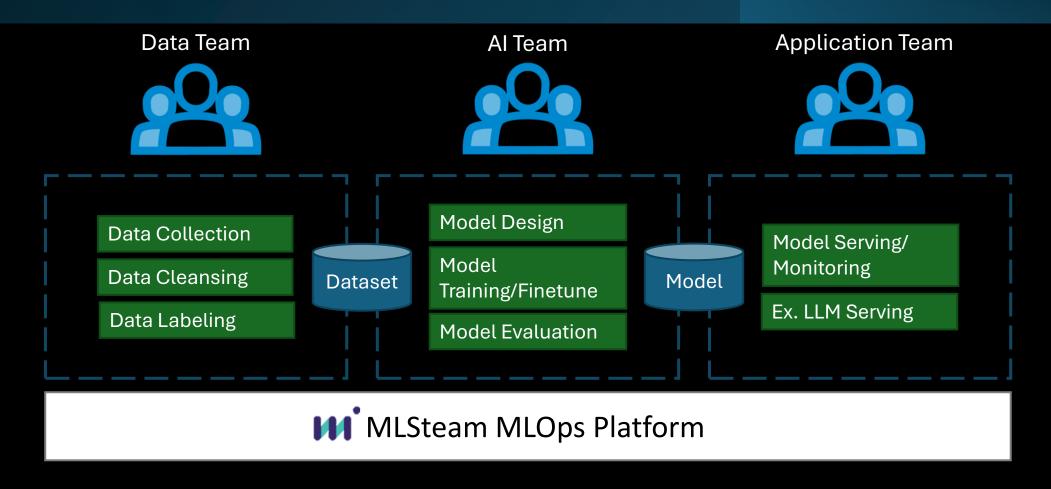
MLSteam - Model Serving

- Expose endpoint to external access
 - User can limit the request frequency
 - Easy to expose OpenAl API compatible LLM.
 - LLM Web Application Template
- Supercharge LLM performance by using vLLM on ROCm 6.2
 - Optimized LLM serving with vLLM.
 - Enhanced performance with ROCm 6.2 on AMD GPUs.
 - Achieving higher throughput (tokens/s) for AI applications.



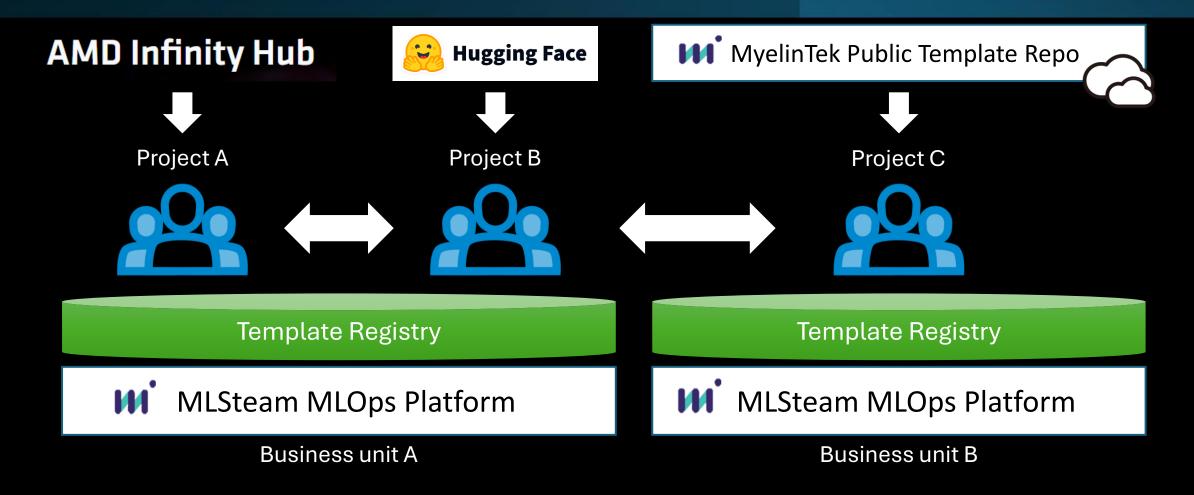


MLSteam - Project Collaboration





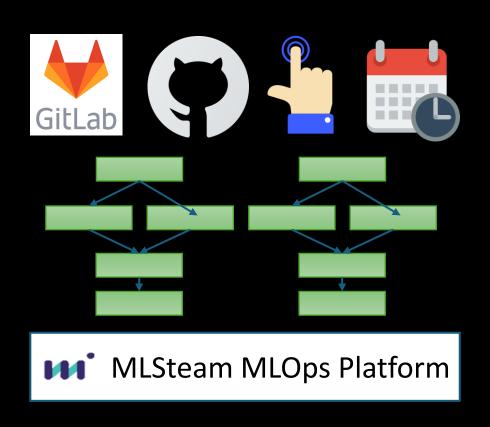
MLSteam - AI/ML Template Sharing





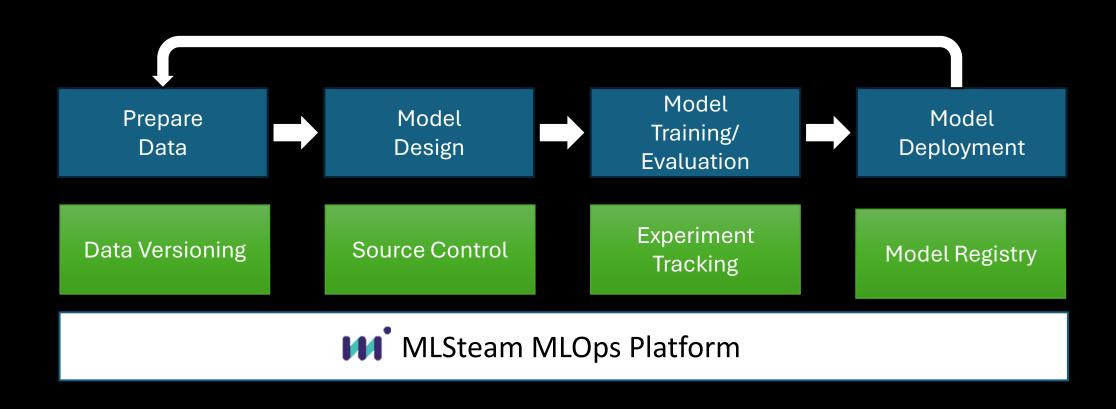
MLSteam - Pipeline Automation

- CI/CD Integration for continues training (CT)
- Visual progress indicators and logs.
- On-demand resource scheduling to maximize resource utilization.
- Easily define execution dependencies (DAG) using a YAML file.



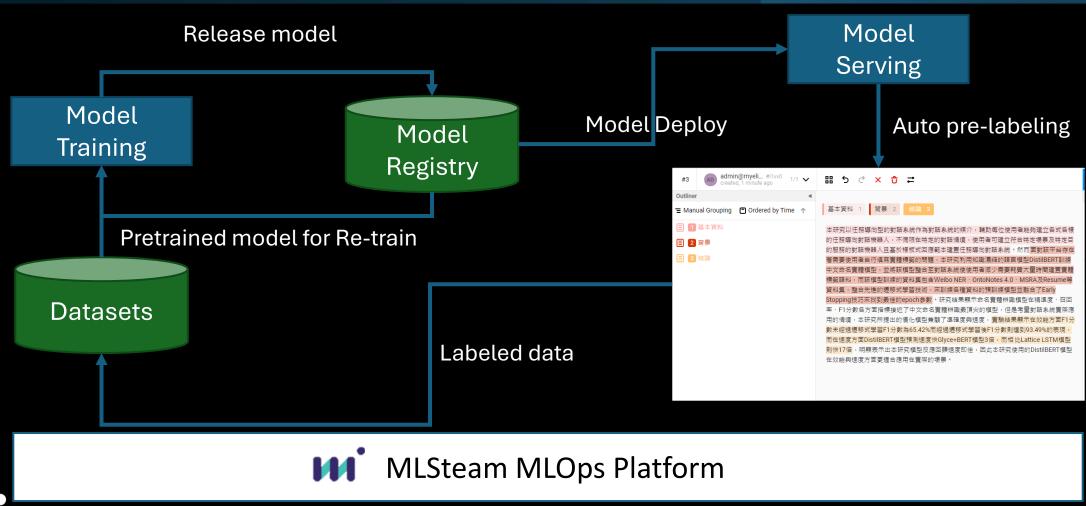


MLSteam - Version Control Everything





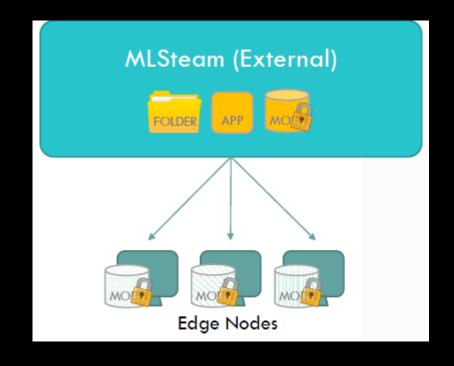
MLSteam - End-to-End Model Lifecycle Management





MLSteam - Security

- Isolated execution environment
- Dataset permission control
- Model deployment protection Mechanism





Resource Management and Sharing



Policy Base Resource Management

- Reserved/OnDemand GPU allocation
- GPU fraction management
- GPU-Time based quota

Monitoring

- Resource consumption table
- Task Resource allocation table
- Global/Task Resource Utilization

MLSteam MLOps Platform + Pod Management









GIGABYTE Server Powering the Future with Full AMD GPU Support

AMD MI325X



GIGABYTE G893-ZX1

Now at Booth

Height: 8U

CPU: 2 x AMD Turin/Genoa platform

Storage: 8 x 2.5 NVMe

Expansion slot: 12 x FHHL PCIe5.0 Slots

GPU: 8 x AMD MI325X

PSU: 6+6 x 3000W & 4+4 x 5200W

AMD MI300X



GIGABYTE G593-ZX1

AMD MI300A



GIGABYTE G383-R80

Height: 5U

CPU: 2 x AMD Turin/Genoa platform

Storage: 8 x 2.5 NVMe

Expansion slot: 8 x Low-profile PCIe5.0 Slots

Expansion slot: 4 x FHHL PCIe5.0 Slots

GPU: 8 x AMD MI300X

PSU: 4+2 x 3000W

Height: 3U

APU: 4 x AMD MI300A

Storage: 8 x 2.5 NVMe

Expansion slot: 8 x FHFL PCIe5.0 Slots

PSU: 3+1 x 3000W





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