MYELINTEK
邁爾凌科技

MLSteam
MLOps System Platform

Eric Chen 陳明江 PhD
eric@myelintek.com
0920-603351

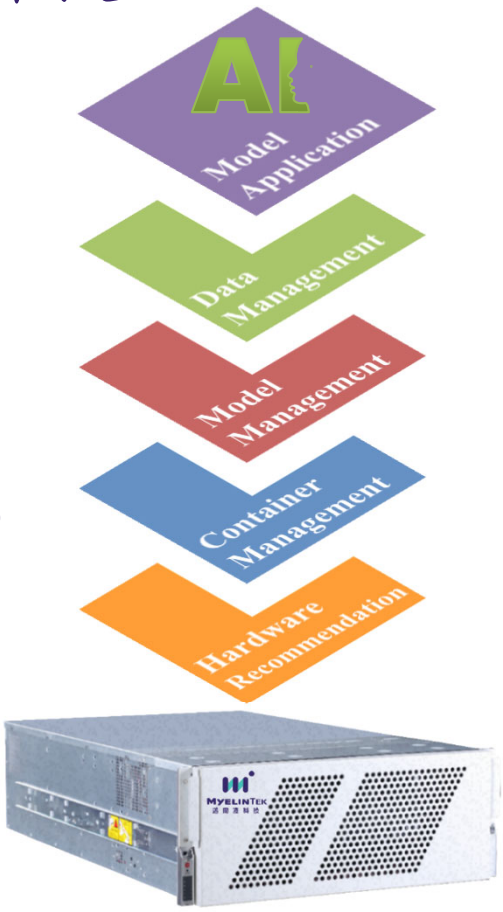
You focus on your AI mission.
We handle the AI environment for you.

MyelinTek Inc. 邁爾凌科技

AI System Software Company
spun-off from ITRI since 2020

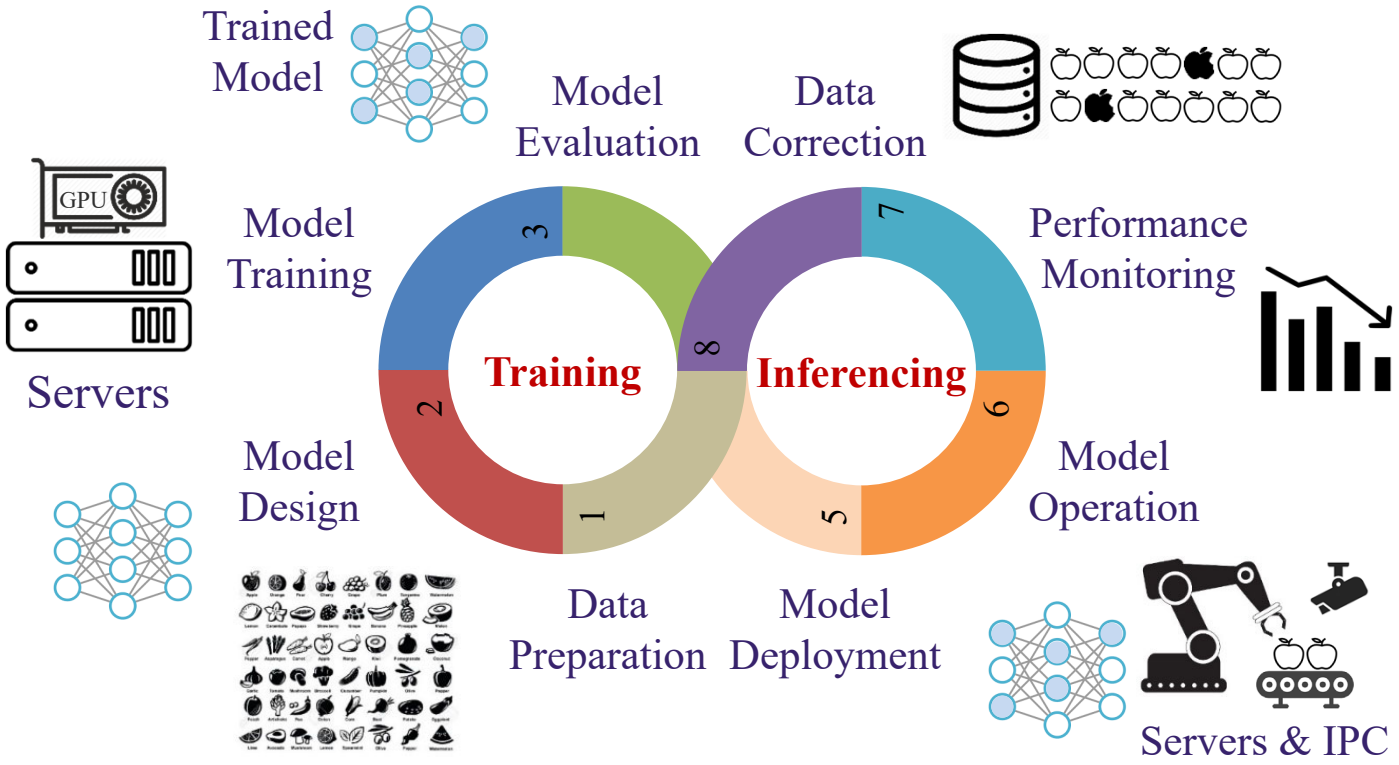
Products: MLSteam
- **AI/ML Training System**
- **AI/ML Inferencing System**
- **AI/ML Lifecycle Management System (MLOps)**

Service
- **Large-scale System Design and Implementation**



Rm. 202, Bldg. 1, No. 321, Sec. 2, Guangfu Rd., Hsinchu, Taiwan
contact@myelintek.com
https://www.myelintek.com/

AI/ML Workflow

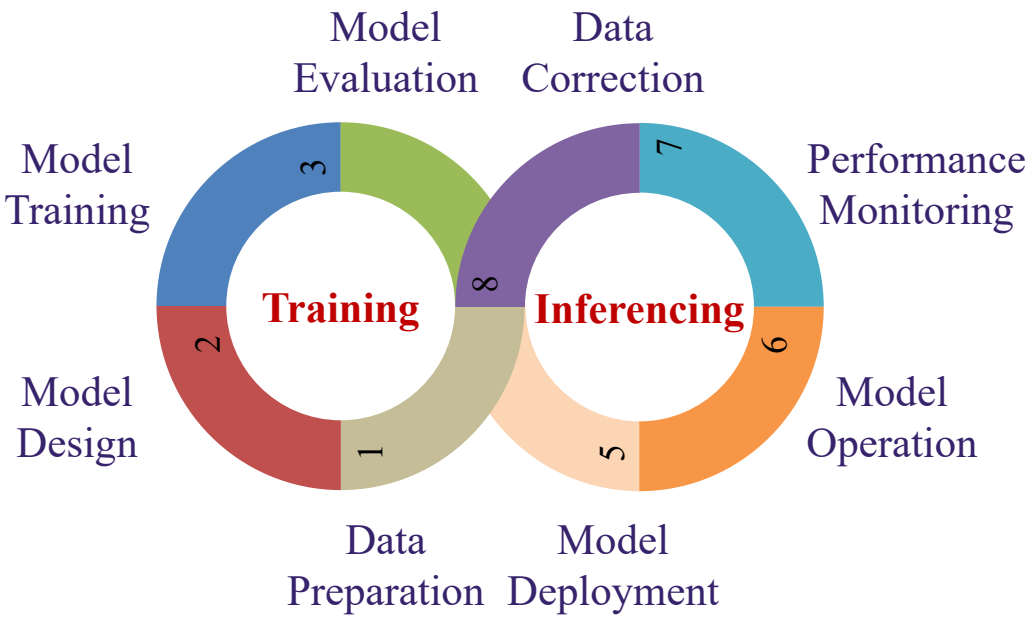


Research & Development → **Operation & Application**

MLSteam (AI/ML System)

AI/ML Training System

AI/ML Inferencing System



MLOps

NVIDIA Train, Adapt, and Optimize (TAO)

AI/ML Lifecycle Management System

Research & Development → **Operation & Application**

MLSteam (AI/ML System)

AI/ML Developers/Operators

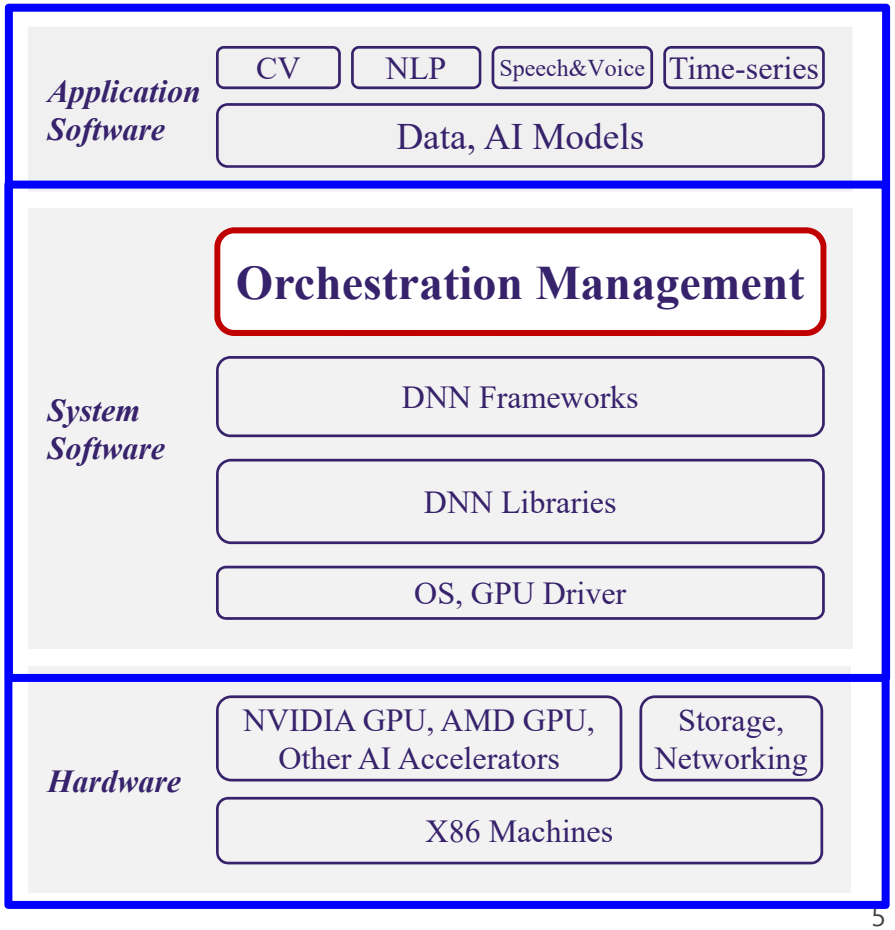
Project Management
Data Management
Model Management
Training Job Management
Inference Request Management
Model Pipeline Management

AI Dev/Ops Management Tools

IT/MIS

Container Management
Resource Allocation
Cluster Management
Resource Monitoring
Hardware Recommendation

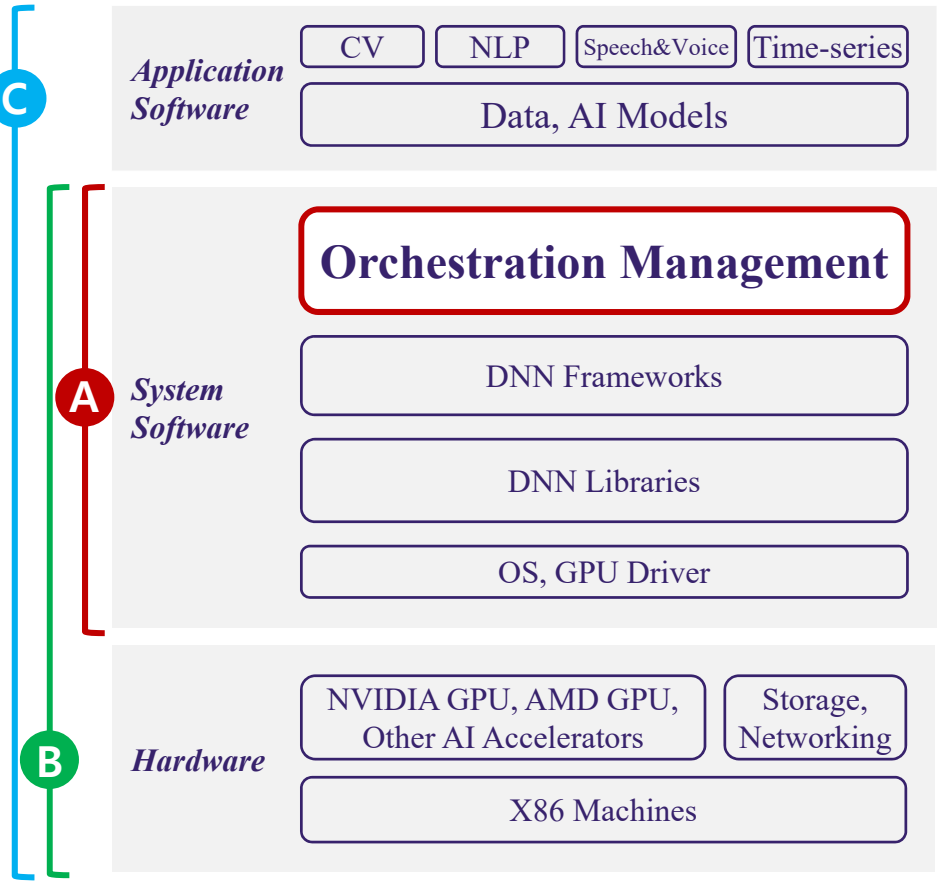
Infrastructure Management Tools



MLSteam (AI/ML System)

Customers: Any AI Enablers

- **A AI/ML System Software**
  Software
- **B AI/ML Appliance**
  Software + Hardware
- **C AI/ML Solution**
  Software + Hardware + Trained Models
- **D AI/ML Cloud Service**
  Software + Hardware + Cloud Service



References

Customer:

- Defense Department

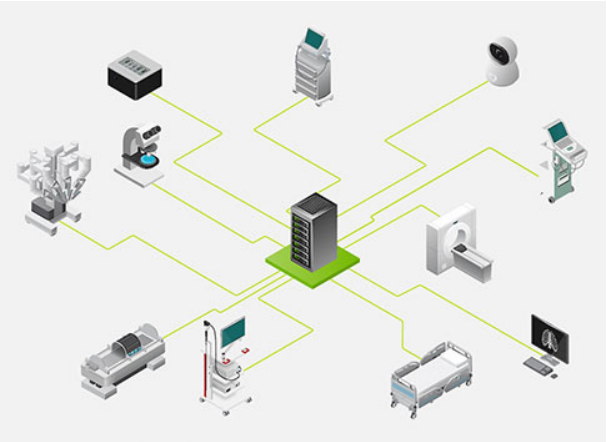
Products/Service:

- Large-scale System Design and Implementation
- AI/ML Appliance
- AI/ML System Software
  - over GPU servers, GPU workstations, NVIDIA DGX-1, DGX Station, NAS, Pure Storage Server, and NetApp Server
  - NVIDIA GPU and AMD GPU

AI Usage:

- Smart Manufacturing
- AI/ML Training

References



Centralized Manage
- **Model Version Control**
- **Data Version Control**
- **Inference Requests**
- **Inference Results**

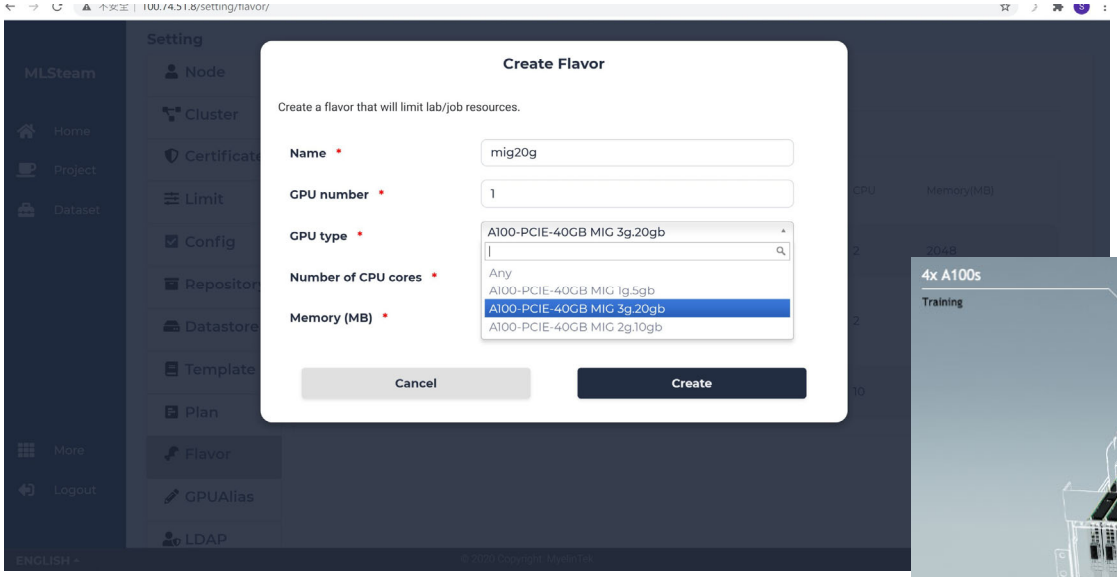
Customer:
- Medical Center (Hospitals)

Products/Service:
- Large-scale System Design and Implementation
- AI/ML Appliance
  - NVIDIA A100 SXM4
  - NVIDIA Multi-Instance GPU (MIG)

AI Usage:
- Smart Healthcare
- AI/ML Inferencing for multiple clinics within a hospital

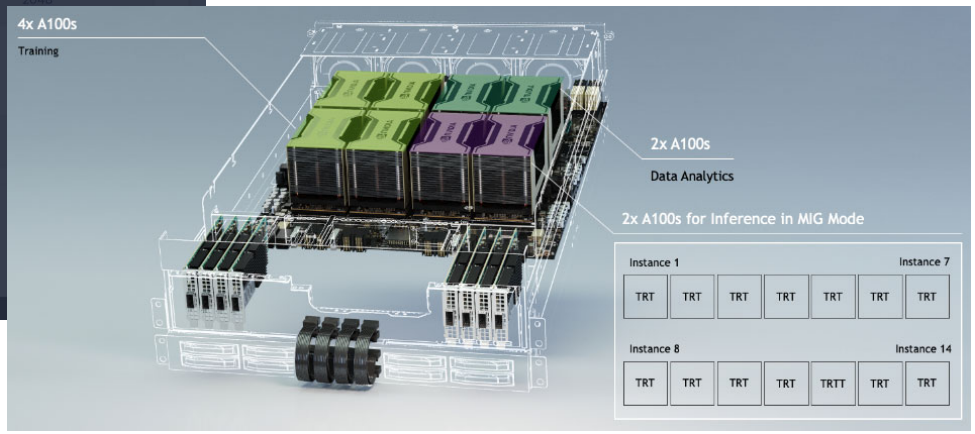
Support NVIDIA MIG

Easily Enable NVIDIA Multi-Instance GPU (MIG)

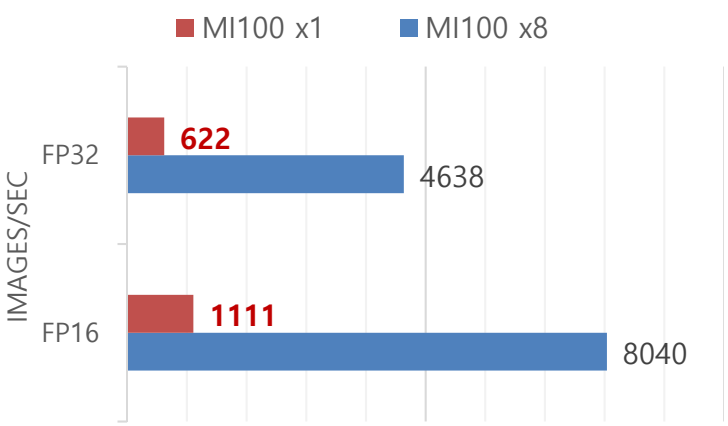



```
GPU 0: A100-PCIE-40GB (UUID: GPU-26743b45-becd-bd30-3181-923ce4727e40)
  MIG 1g.5gb Device 0: (UUID: MIG-GPU-26743b45-becd-bd30-3181-923ce4727e40/7/0)
  MIG 1g.5gb Device 1: (UUID: MIG-GPU-26743b45-becd-bd30-3181-923ce4727e40/8/0)
  MIG 1g.5gb Device 2: (UUID: MIG-GPU-26743b45-becd-bd30-3181-923ce4727e40/9/0)
  MIG 1g.5gb Device 3: (UUID: MIG-GPU-26743b45-becd-bd30-3181-923ce4727e40/10/0)
  MIG 1g.5gb Device 4: (UUID: MIG-GPU-26743b45-becd-bd30-3181-923ce4727e40/11/0)
  MIG 1g.5gb Device 5: (UUID: MIG-GPU-26743b45-becd-bd30-3181-923ce4727e40/12/0)
  MIG 1g.5gb Device 6: (UUID: MIG-GPU-26743b45-becd-bd30-3181-923ce4727e40/13/0)
GPU 1: A100-PCIE-40GB (UUID: GPU-465194e1-d687-ee6a-9794-5584a1c84e38)
  MIG 3g.20gb Device 0: (UUID: MIG-GPU-465194e1-d687-ee6a-9794-5584a1c84e38/2/0)
  MIG 2g.10gb Device 1: (UUID: MIG-GPU-465194e1-d687-ee6a-9794-5584a1c84e38/3/0)
  MIG 1g.5gb Device 2: (UUID: MIG-GPU-465194e1-d687-ee6a-9794-5584a1c84e38/9/0)
  MIG 1g.5gb Device 3: (UUID: MIG-GPU-465194e1-d687-ee6a-9794-5584a1c84e38/10/0)
```

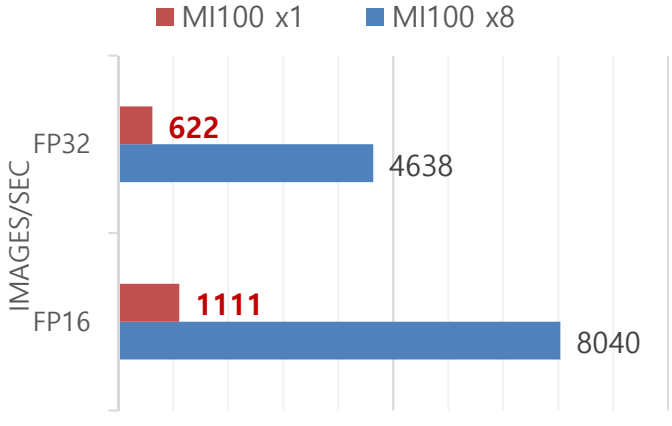
NVIDIA A100 GPU & MIG



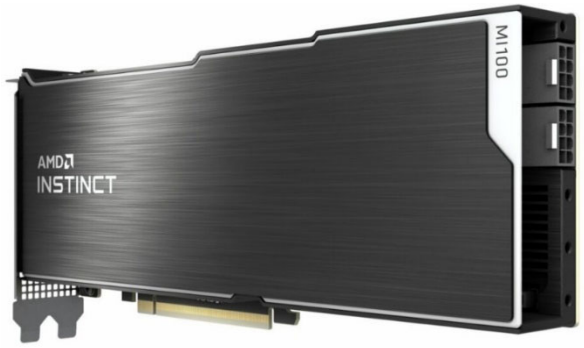
Support AMD GPU for AI/ML

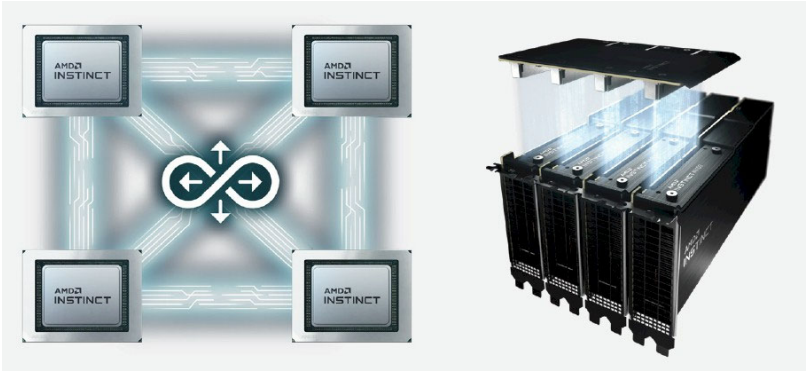


RESNET-50, IMAGENET2012(1,281,167 IMAGES)
TENSORFLOW; 30 EPOCHS; 72% ACCURACY



RESNET-50, IMAGENET2012(1,281,167 IMAGES)
TENSORFLOW; 30 EPOCHS; 72% ACCURACY

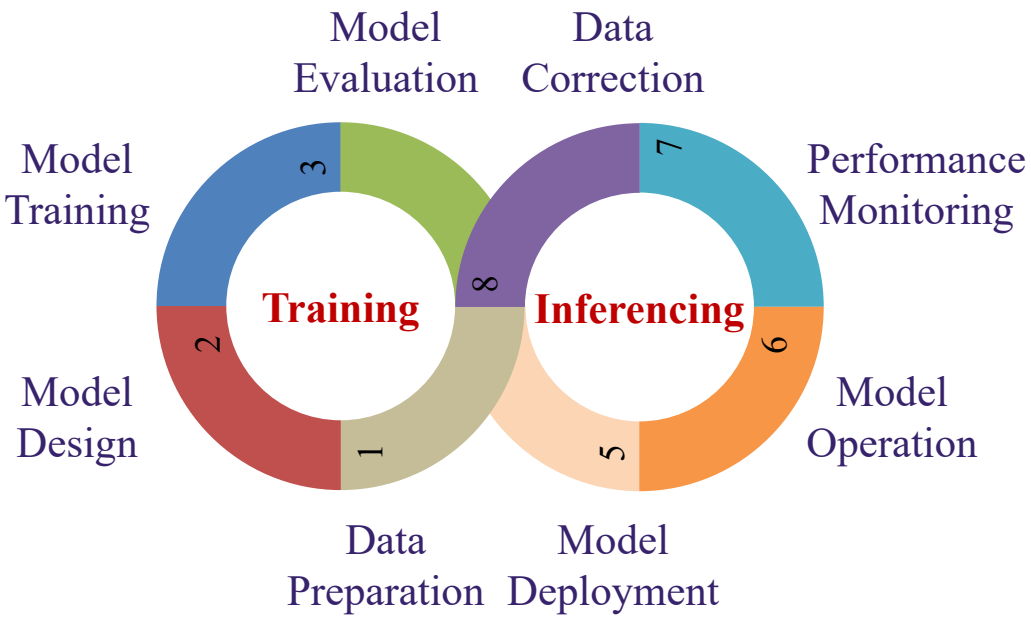




MyelinTek Inc.

AI/ML Training System

AI/ML Inferencing System



MLOps

NVIDIA Train, Adapt, and Optimize (TAO)

AI/ML Lifecycle Management System

Research & Development → **Operation & Application**

MYELINTEK
邁爾凌科技

Thank You

Eric Ming-Chiang Chen 陳明江 PhD
eric@myelintek.com
886-920-603-351