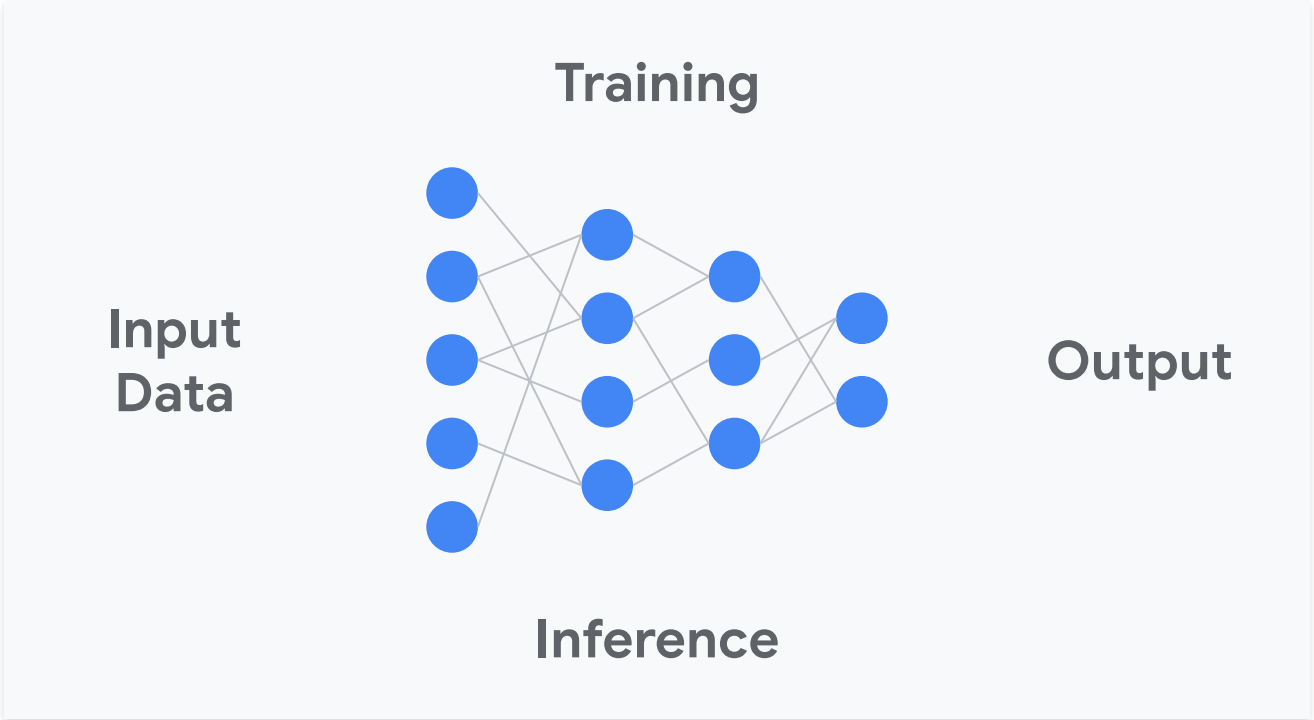
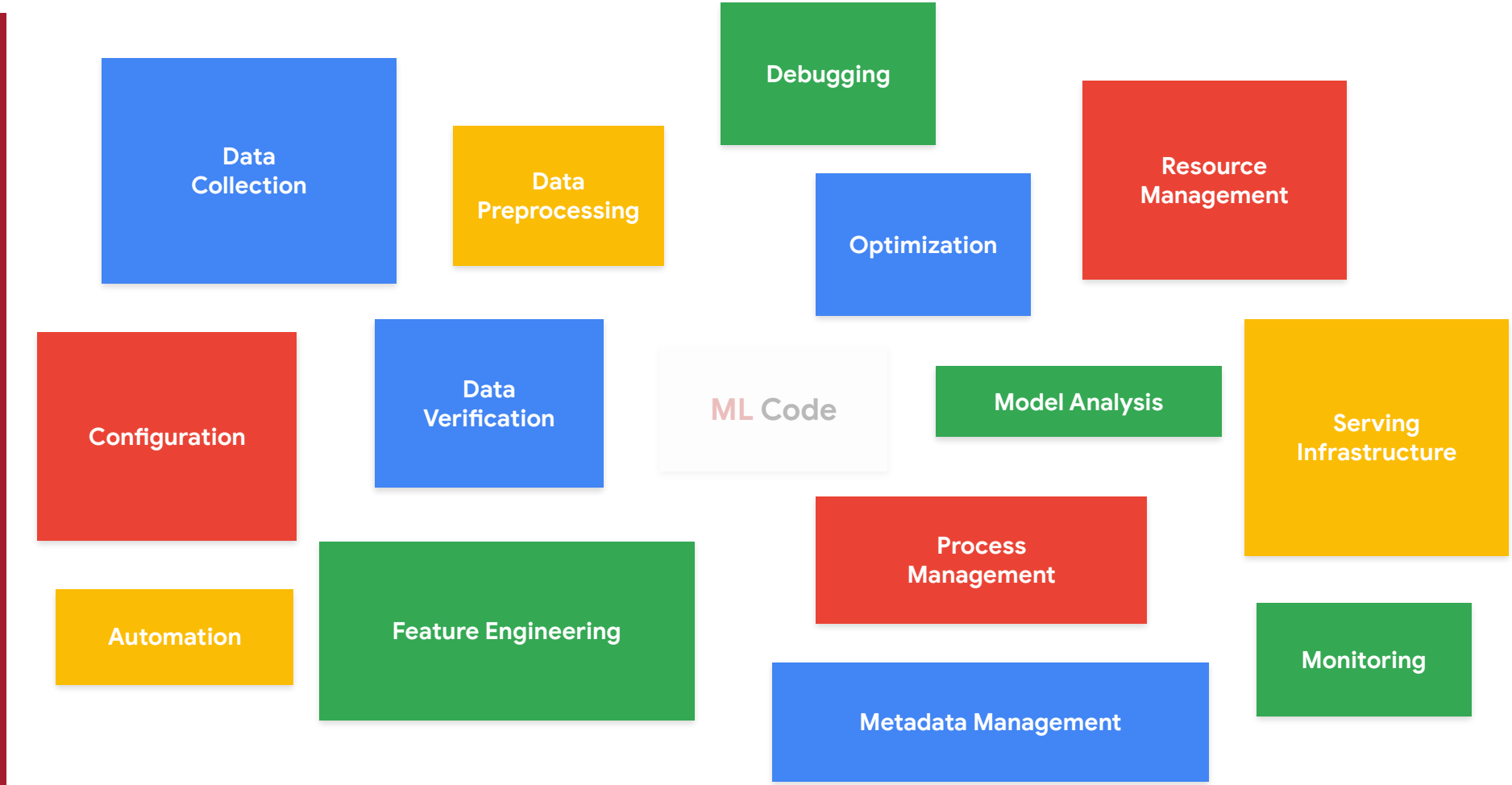
ML Lifecycle


Training
Input Data
Output
Inference


Training
Input Data
Output
Inference

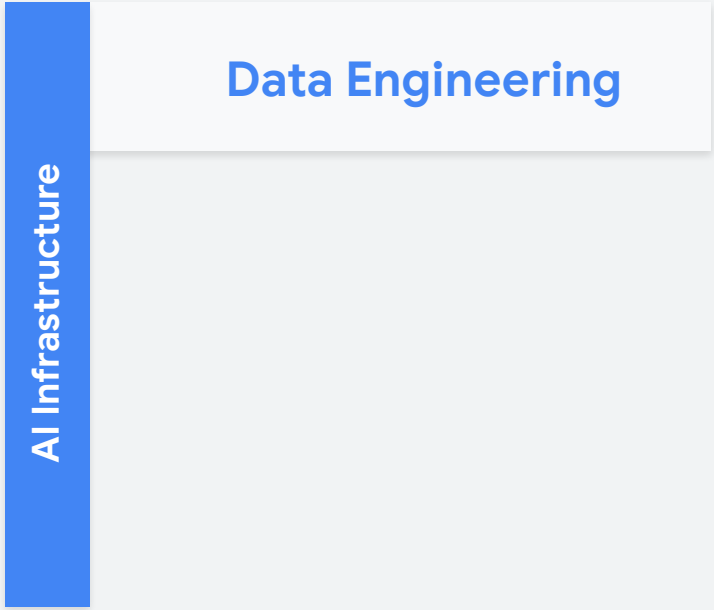
ML Code


Debugging
Data Collection
Data Preprocessing
Resource Management
Optimization
Configuration
Data Verification
ML Code
Model Analysis
Serving Infrastructure
Process Management
Automation
Feature Engineering
Monitoring
Metadata Management


AI Infrastructure
Data Engineering
Model Engineering
Model Deployment
Product Analytics

Data Engineering

- Defining data **requirements**
- **Collecting** data
- **Labelling** the data
- Inspect and **clean** the data
- Prepare data for **training**
- **Augment** the data
- Add **more data**



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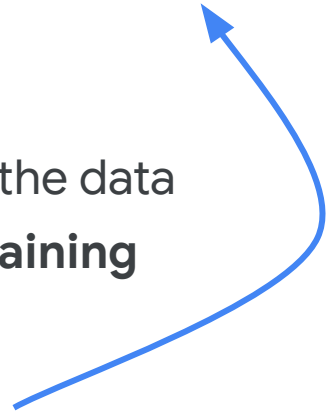
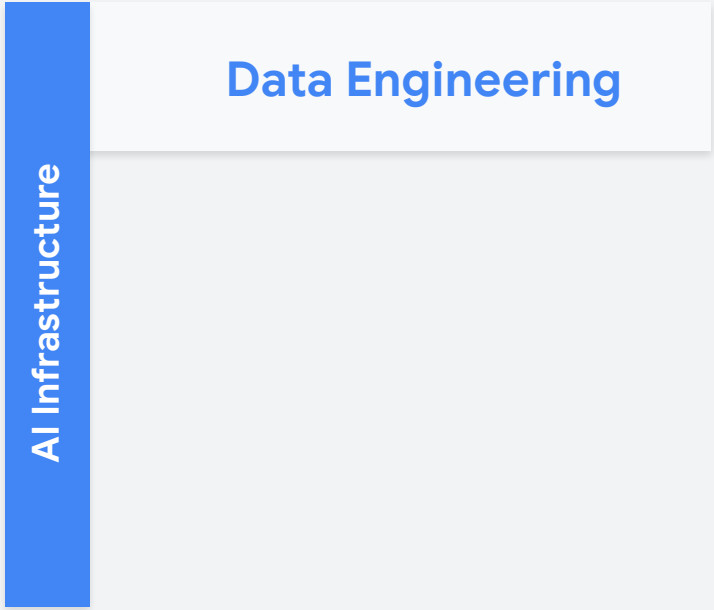
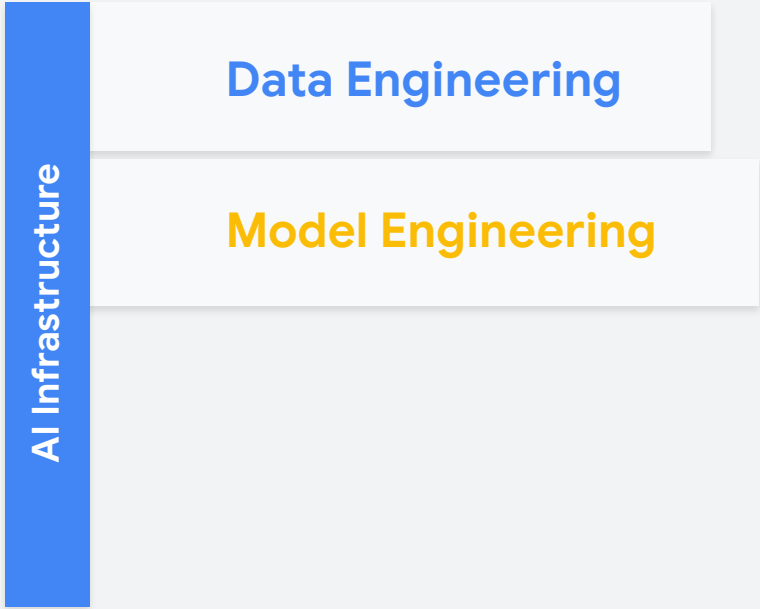




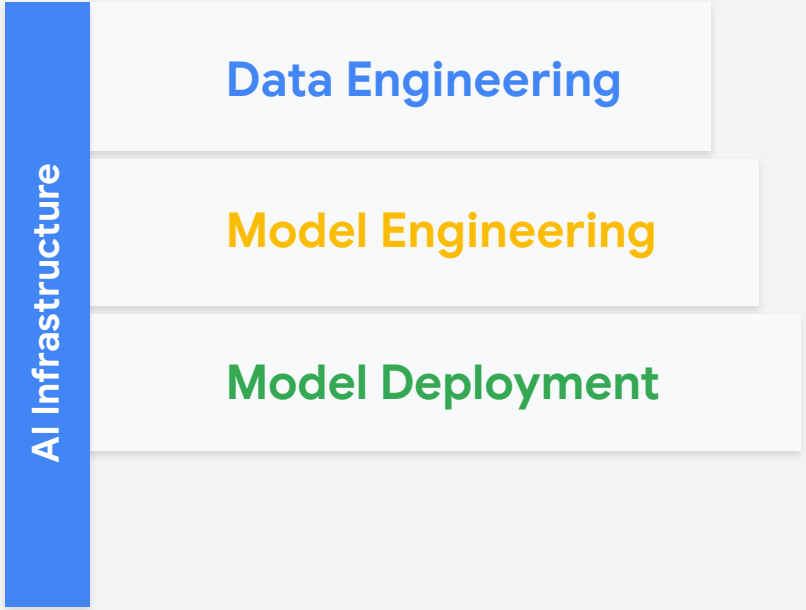
Model Engineering

- **Training** ML models
- Improving training **speed**
- Setting **target** metrics
- **Evaluating** against metrics
- **Optimizing** model training
- Keeping up with **SOTA**



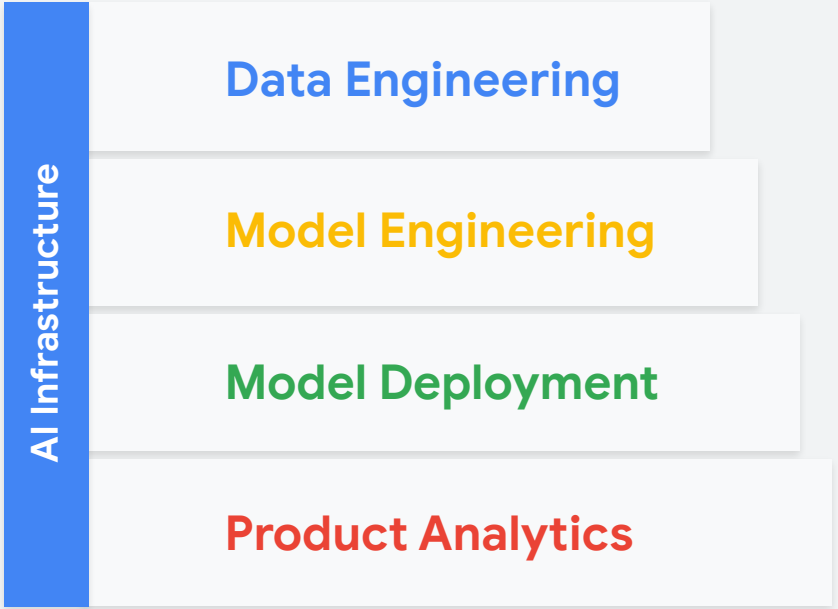
Model Deployment

- Model **conversion**
- **Performance** optimization
- **Energy-aware** optimizations
- **Security** and **privacy**
- **Inference** serving APIs
- **On-device** fine-tuning



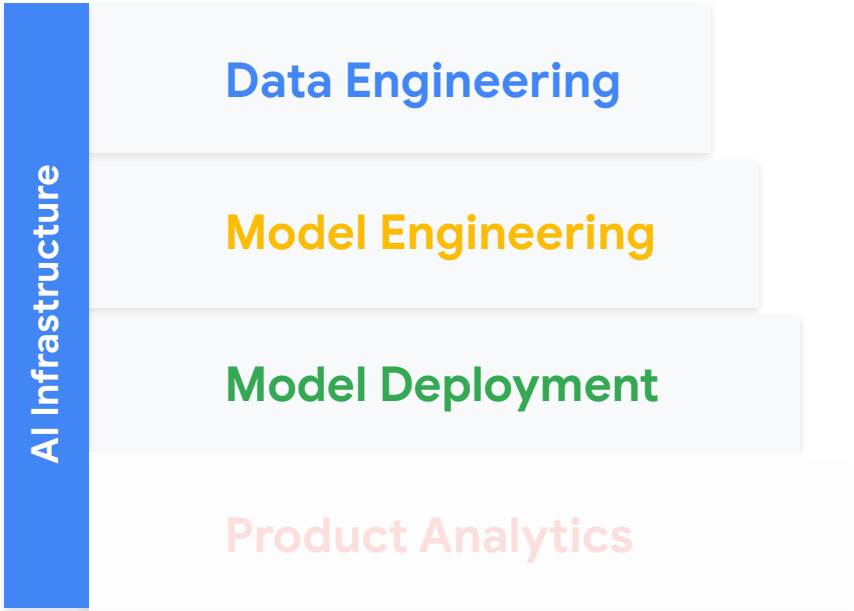
Product Analysis

- **Dashboards**
- Field data **evaluation**
- **Value-added** for business
- Opportunities for **advancement** and **improvements**



Focus in TinyML

Focus in TinyML



Life cycle of ML