



Motivation

What happens if your AI starts making <u>bad</u> <u>decisions</u>?

How would you find out?

When would you find out?

Would you know why?

Can you trust AI?



Why ML fails in production

Feedback Loops between ML and Environment

Drift in population

Noise

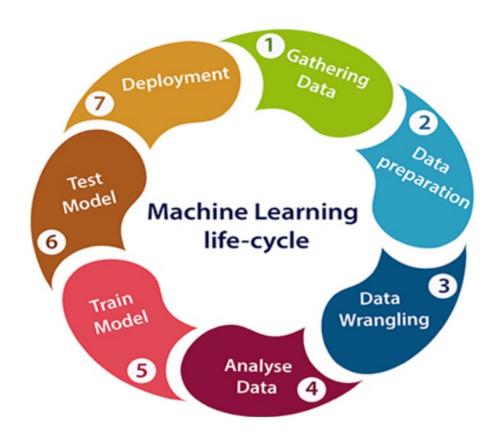
Random Shocks

Long cycles



Al Observability

Observability is the practice of obtaining a deep understanding into your model's performance across all stages of the model development cycle



Timely Detection

- Only solve after identification
- Reducing identification cost
- Production and development

Timely resolution

- Diminish time of resolution
- Identify root cause
- Provide a course of resolution



Observability components

Monitor drift

Root cause analysis

Performance metrics

Feedback loops



ML hierarchy of needs

O7 Al Observability

06 Al Deployement

05 Data Science

04 Business Intelligence

03 Data Intelligence

02 Data Engineering

01 Data Acquisition

ML Monitoring, Business Impact, Business KPIs, ML Performance Metrics, ML Health, Data shift, Data & Concept Drift, Model decay, ...

Model Inference, ML Orchestration, Model Serving, Model Lifecycle Management, CI/CD, Retraining, Refactoring, ...

Al, Deep Learning, Machine Learning, Statistical Modeling, Natural Language Processing, ...

Reporting, Visualization, Advanced Analytics, KPIs Workflow Automation, ...

Data Governance, Data Quality, Security, Data Catalogue, Data Lineage, Stewardship, ...

Data Flows, Pipelines, ETL, EDL, Data Storage Infrastructure, ...

IoT, Sensors, ERP, User Data, Socia Media, External Data, ...