
# Considerations for Successful Model Deployment

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CVS HEALTH

**Education**

Ph.D. Computational Biology (UConn)
Post Doctoral Fellowship Medical Informatics (Yale University)

**Experience**

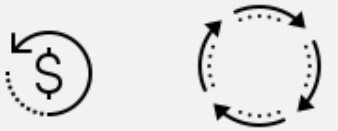
Big Data Engineer (Thomson Reuters)
Enterprise Research Data Architect (Jackson Lab)
Computer Vision Platform and Product Owner/ ML COE (The Hartford)
Enterprise Data and Machine Learning Engineering (CVS Health)

ALL THOUGHTS MY OWN AND DO NOT REPRESENT MY CURRENT OR PREVIOUS EMPLOYERS

01.

## Model Development Lifecycle

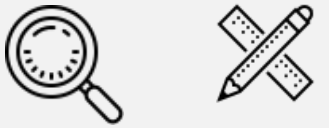
Iteration Cycles



02.

## Experimentation and Design

Experimentation . Feasibility Assessment



03.

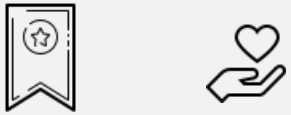
## Implementation and Monitoring

Infrastructure . Code . Data

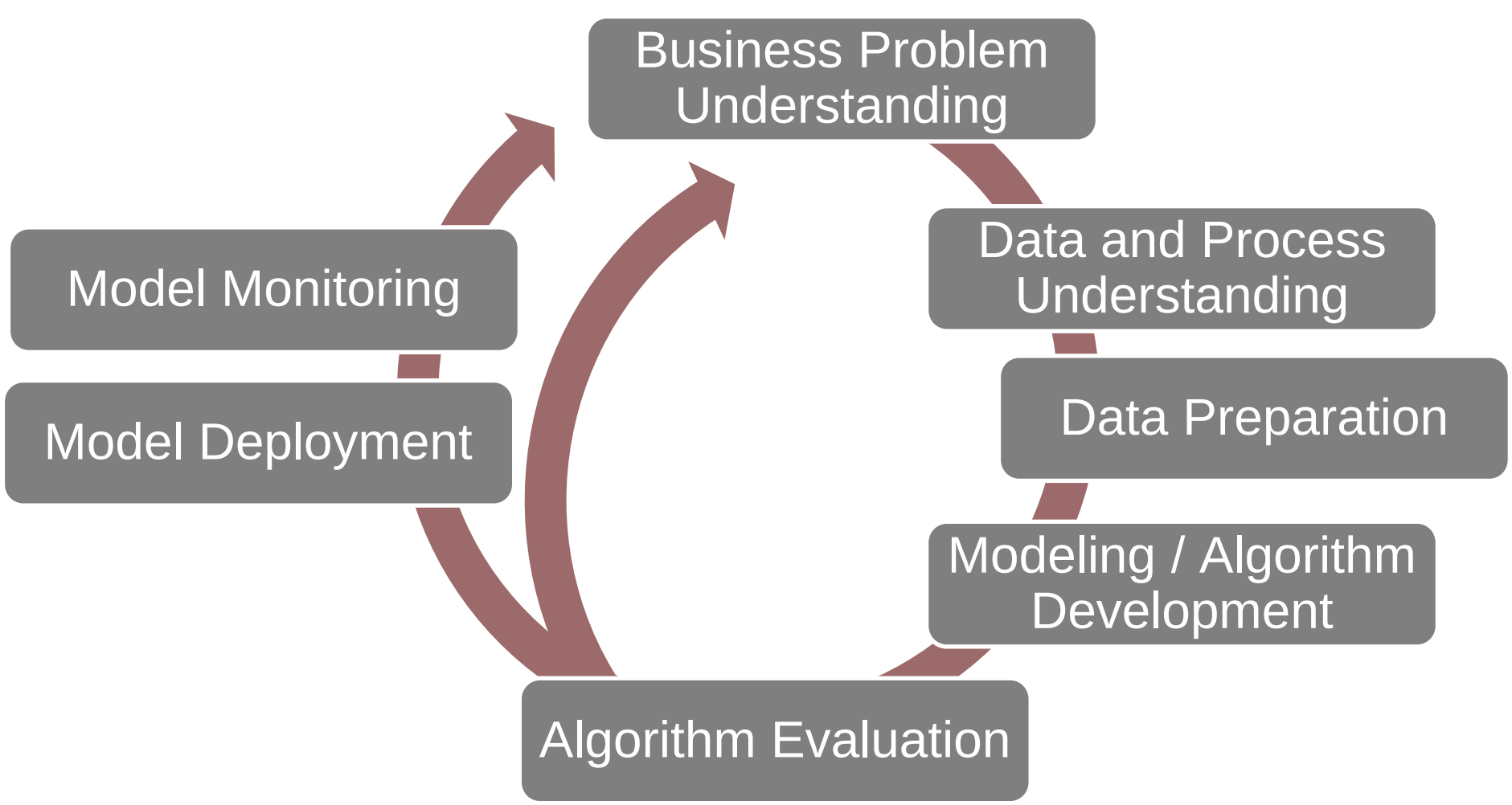
04.

## Summary

Transparent . Reproducible . Trusted . Reliable



# Model Development Lifecycle




- Reproducible
- Explainable
- Unbiased
- Secure
- Reliable

Understand Impact

Set Expectations

Literacy

Change Management

Feasibility Assessment

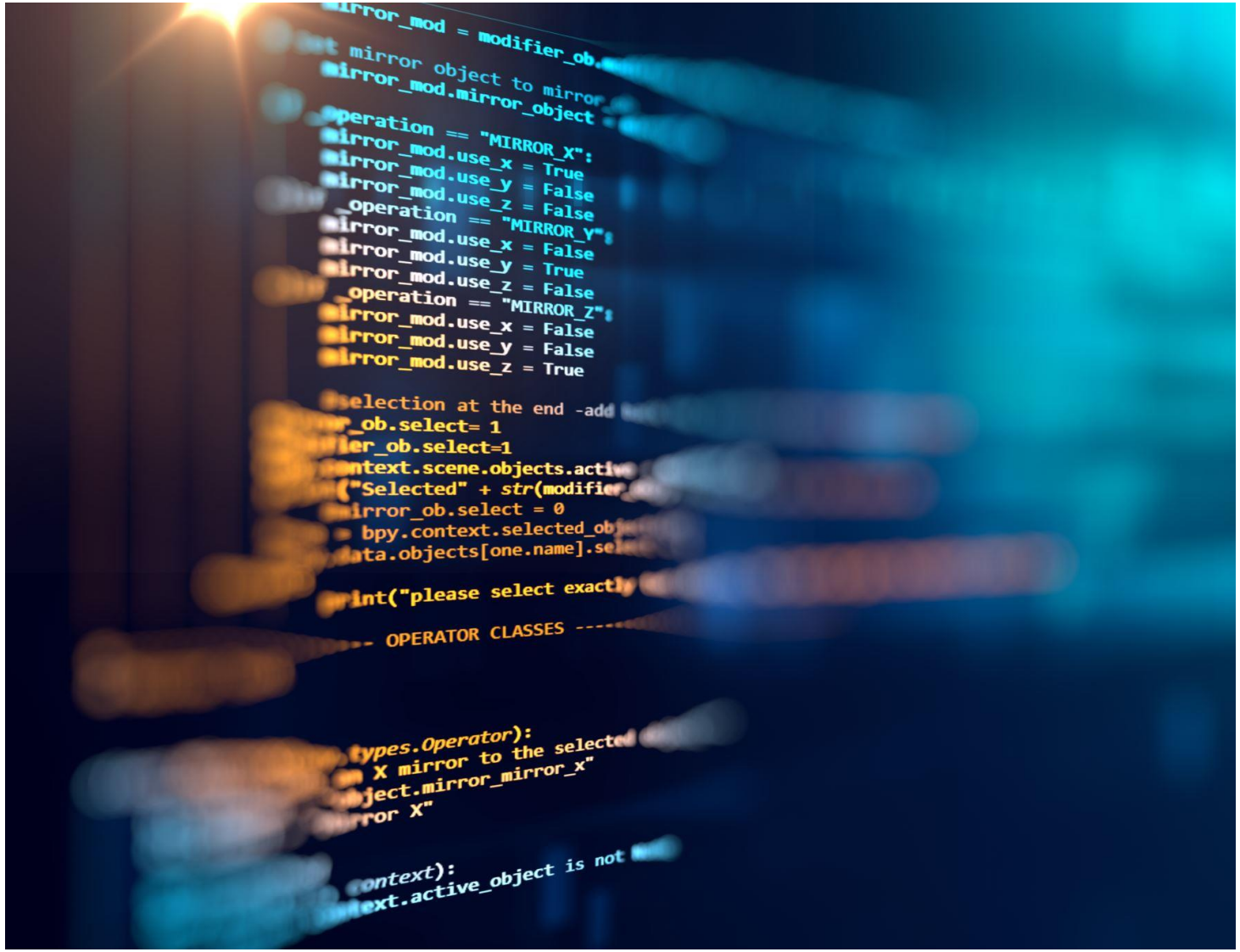
Experimentation and Design

# Experimentation and Design

- Business Process Understanding
- Current Problem / Inefficiencies
- Data (Capture, Maturity, Access and Integration)
- Managing Change
- ML Task Complexity
- Level of Automation (batch / near-real time / real time)
- ROI

# Implementation and Monitoring

- Data Ops
- Dev Ops
- ML Ops



# Implementation and Monitoring

- Infrastructure – Cloud vs On-Prem
- Infrastructure – Managed vs Owned
- Data Access – Operational DB, API
- Feature Tracking
- Model Monitoring
- Feedback Loop
- Refresh Cycle

# Model Development + Data Lifecycle + Dev Ops