# Managing a Model's Lifecycle



Jared Rhodes
INDEPENDENT CONSULTANT

@qimata www.jaredrhodes.com



#### Overview



**Application Insights** 

**Evaluating and exporting data** 

Root cause analysis

**Drift metrics** 

Versioning and automation



## Performance Analytics



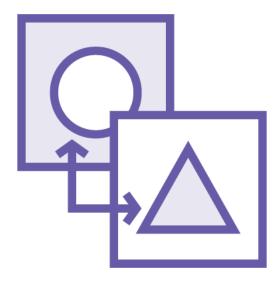
### Performance Analytics



**Application Insights** 



**Evaluate data** 



**Export data** 



### Demo



Application Insights setup

Continuous data export



## Long Term Model Planning



### Long Term Model Planning

Root cause analysis

Scaling model lifecycle



### Root Cause Analysis



**Drift detection run** 



Analyze metrics



Adjust and retrain



#### Drift Metrics

wasserstein\_distance

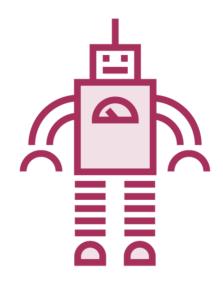
energy\_distance

datadrift\_coefficient

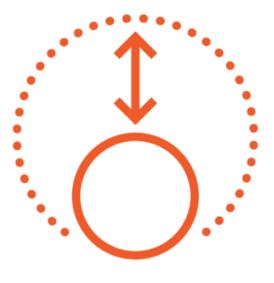
datadrift\_contribution



### Scaling Model Lifecycle



**Automation** 



Remote targets



## Code Versioning



# Azure Machine Learning pipelines

Azure Machine Learning pipelines allow you to create workflows in your machine learning projects.

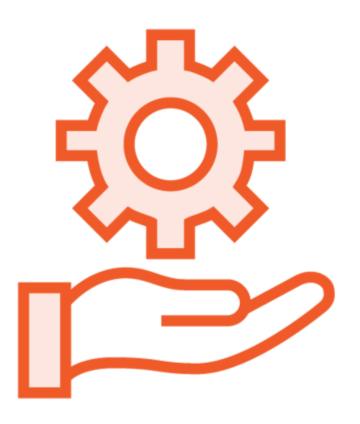


Data preparation

Training configuration

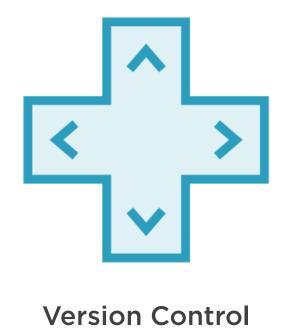
Training & validating

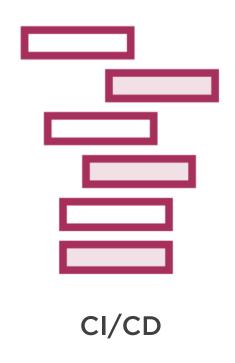
Deployment





### Automation







#### Review



**Azure Machine Learning** 

Model deployment

**Model version control** 

**Azure DevOps** 

**Performance monitoring** 

