



xodiac  
making every team thrive

# AIOps and MLOps

What's the difference?

Peter Maddison

# Who am I?



Peter Maddison

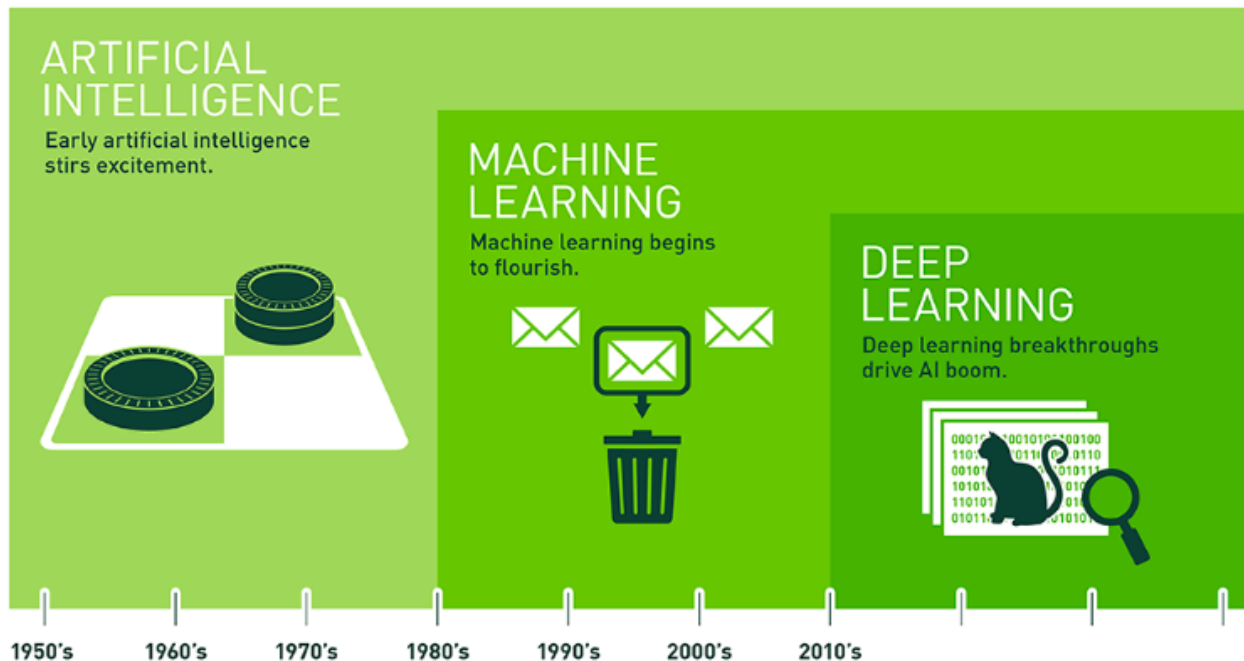
Transformation consultant, coach, change agent, DevOps advocate

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# What's the difference?



<https://hackernoon.com/are-you-using-the-term-ai-incorrectly-911ac23ab4f5>

# What's the same?



<https://xkcd.com/1838/>

# AI Ops

Application of AI practices to the area of IT Operations

# Uses



# Facilitating flow



# Evolution vs Renovation





# Valuable outcomes

Managing Alert Fatigue (Event correlation and root cause)

Anomaly detection

System mapping and dependency management

The way we think

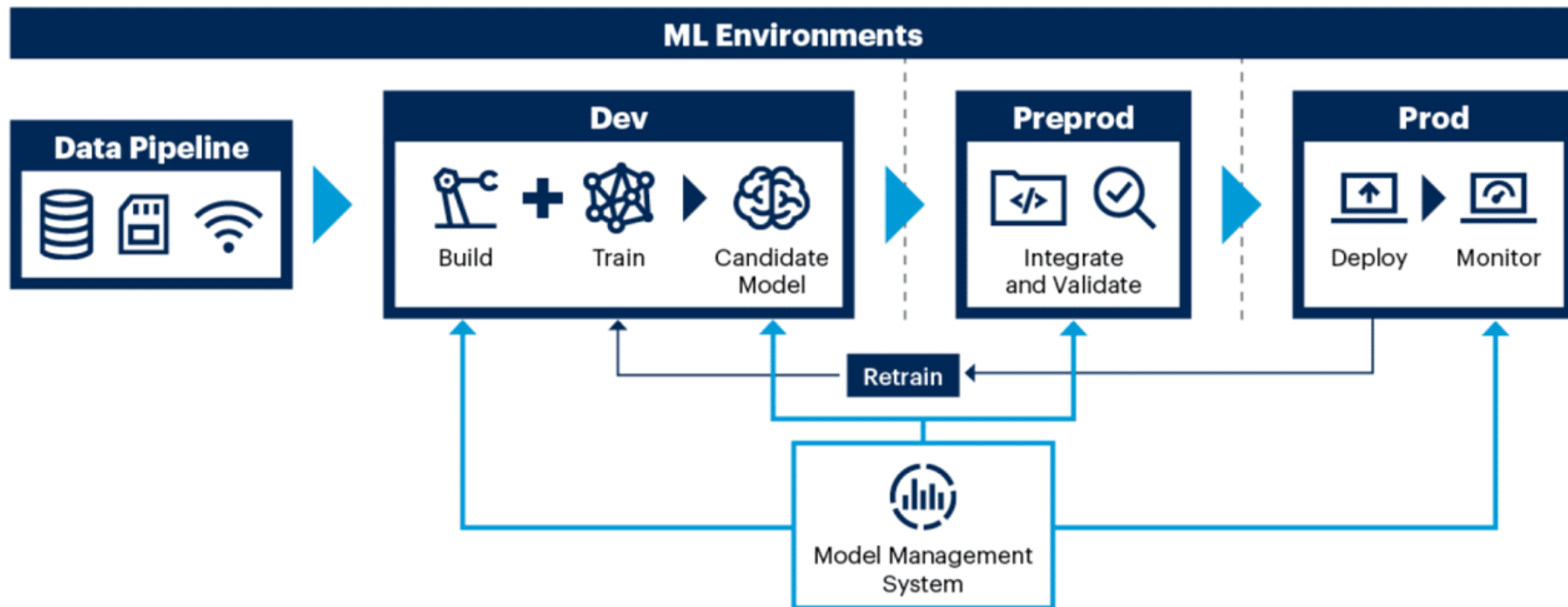
# Where to begin?



# ML Ops

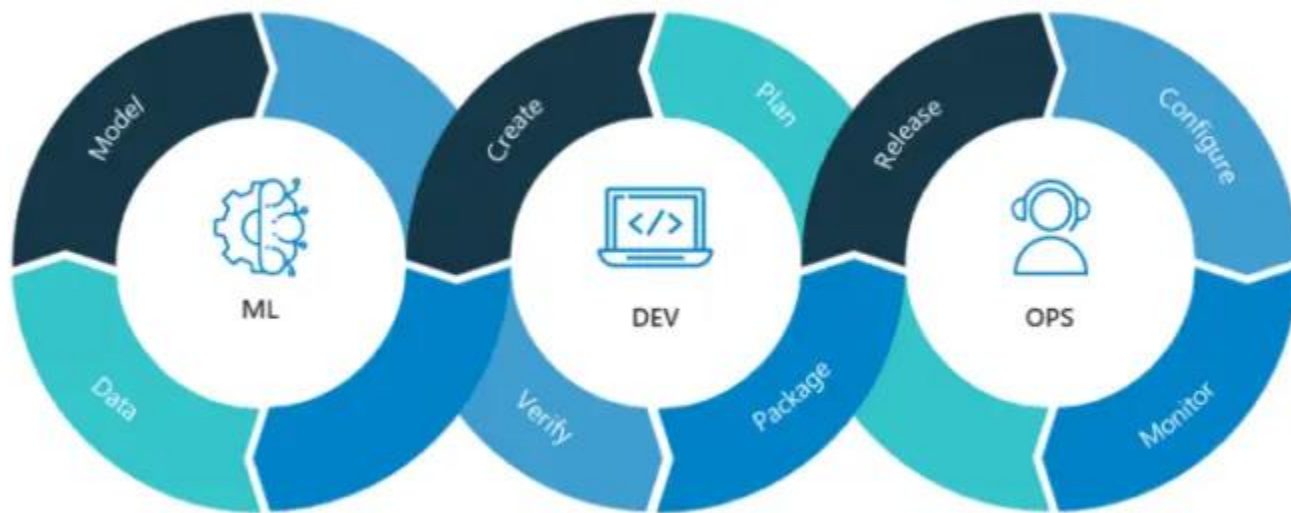
Apply DevOps practices to automate the data management and analytics practices that surround Machine Learning

# Typical ML Pipeline



Source: Gartner

# Extending DevOps to the Data Space



MLOps combine machine learning, applications development and IT operations. Source: Neal Analytics

# What's in it for me?

## **Data Collection**

*Continuous input stream*

## **Data Ingestion**

*Prepare data for downstream ML applications*

## **Data Analysis & Curation**

*Inspect and select the right data*

## **Data Labelling**

*Annotate data*

## **Data Validation**

*Verify that data is usable for the rest of the pipeline*

## **Data Preparation**

*Prepare data for ML purposes (split, versioning,...)*

## **Model Training**

*Use ML algorithms to create models*

## **Model Evaluation**

*Compute Model KPIs on test set*

## **ML System Validation**

*Validate that overall ML System can be deployed*

## **ML System Deployment**

*Deploy the ML System to production*

# DevOps vs. DataOps - The Human Factor

## Different People and Expectations

**DevOps  
Users &  
Tools**



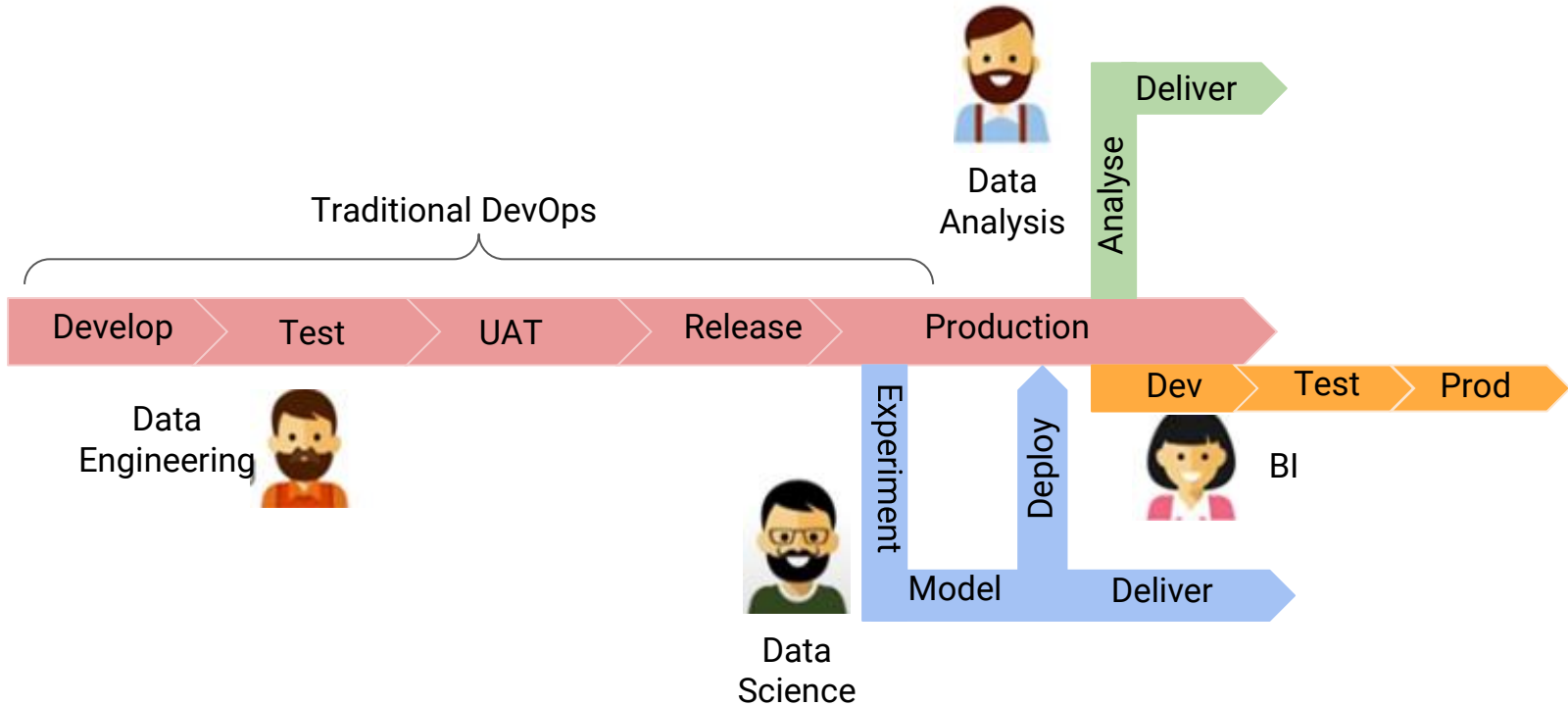
Software Engineers, comfortable with coding and complexity of multiple languages, tools, and hardware/software.

**DataOps  
Users &  
Tools**



Data Scientists, Engineers, and Analysts who want to just analyze data and build models.

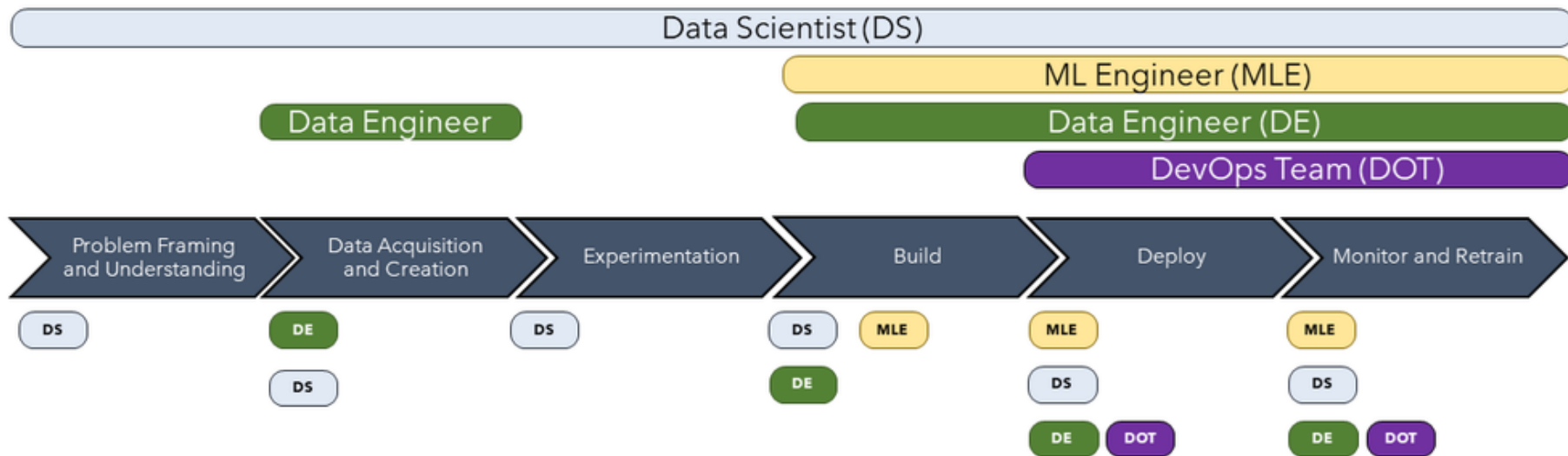
<https://medium.com/data-ops/dataops-is-not-just-devops-for-data-6e03083157b7>



Simon Whiteley, <https://www.youtube.com/watch?v=1h44byPBK6Q>



# Extending MLOps



<https://techcommunity.microsoft.com/t5/azure-ai/mlops-is-not-enough/ba-p/1386789>

<https://github.com/dslp/dslp-repo-template>

# What next?

*“If it is written in Python, it’s probably machine learning.”*

*If it is written in PowerPoint, it’s probably AI.”*

- Mat Velloso



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Come chat with me in the Network  
chat lounge after this talk

# Thank you!



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