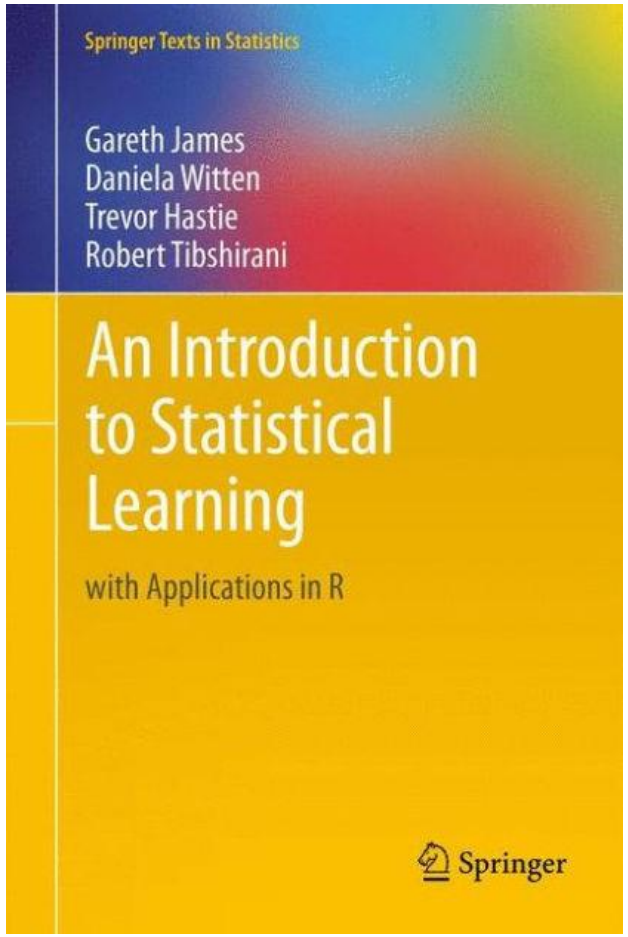
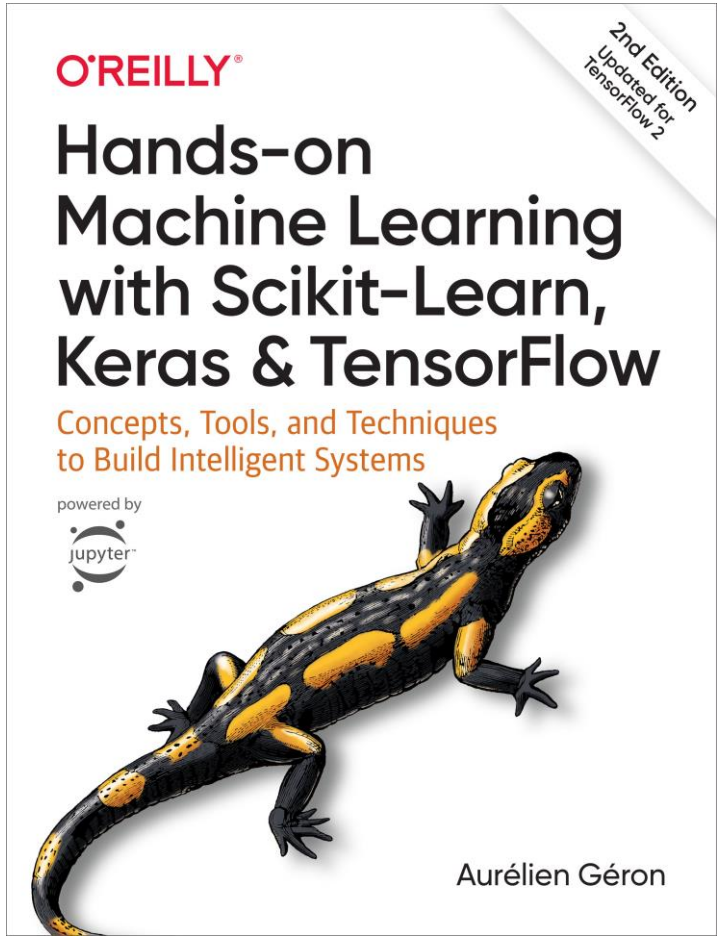
Data Science Concepts

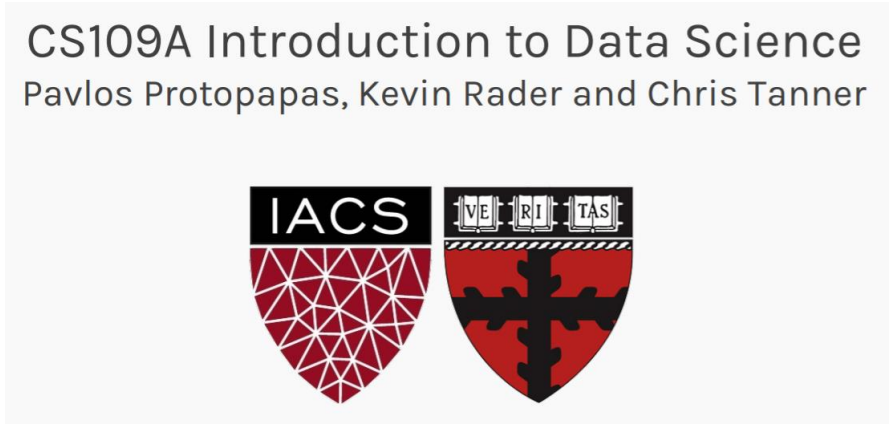
About The Course

by Ankit Rathi

References








Machine Learning

Machine Learning

by Andrew Ng

coursera

Topic

Topic of the slide

Section of the course

Course

Section

Topic

Content of the slide

Status of the course

In Progress
Completed
Upcoming

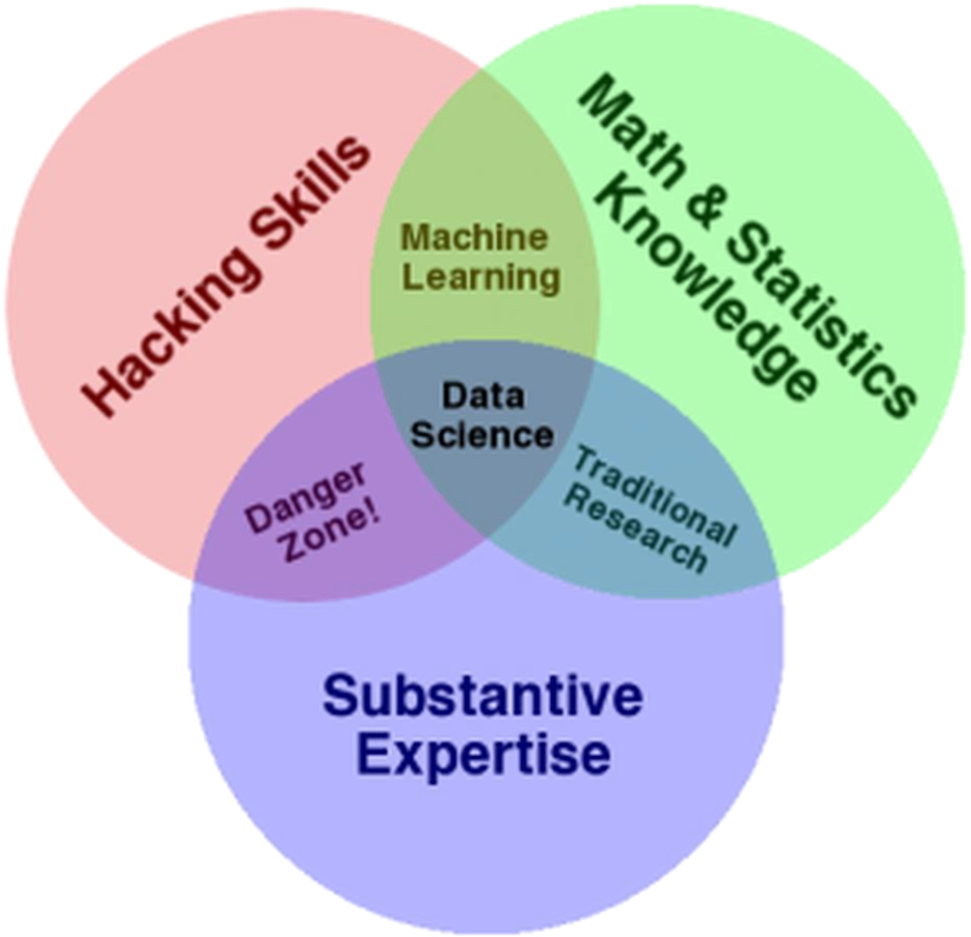
Outline

- *About The Course*
- *Introduction*
- *End-to-End Process*
- *Data Ingestion, Wrangling & Visualization*
- *Machine Learning Algorithms*
- *Deep Learning Networks*
- *Natural Language Processing*
- *Reinforcement Learning*
- *Model Training & Deployment*
- *Appendix*

This Lecture

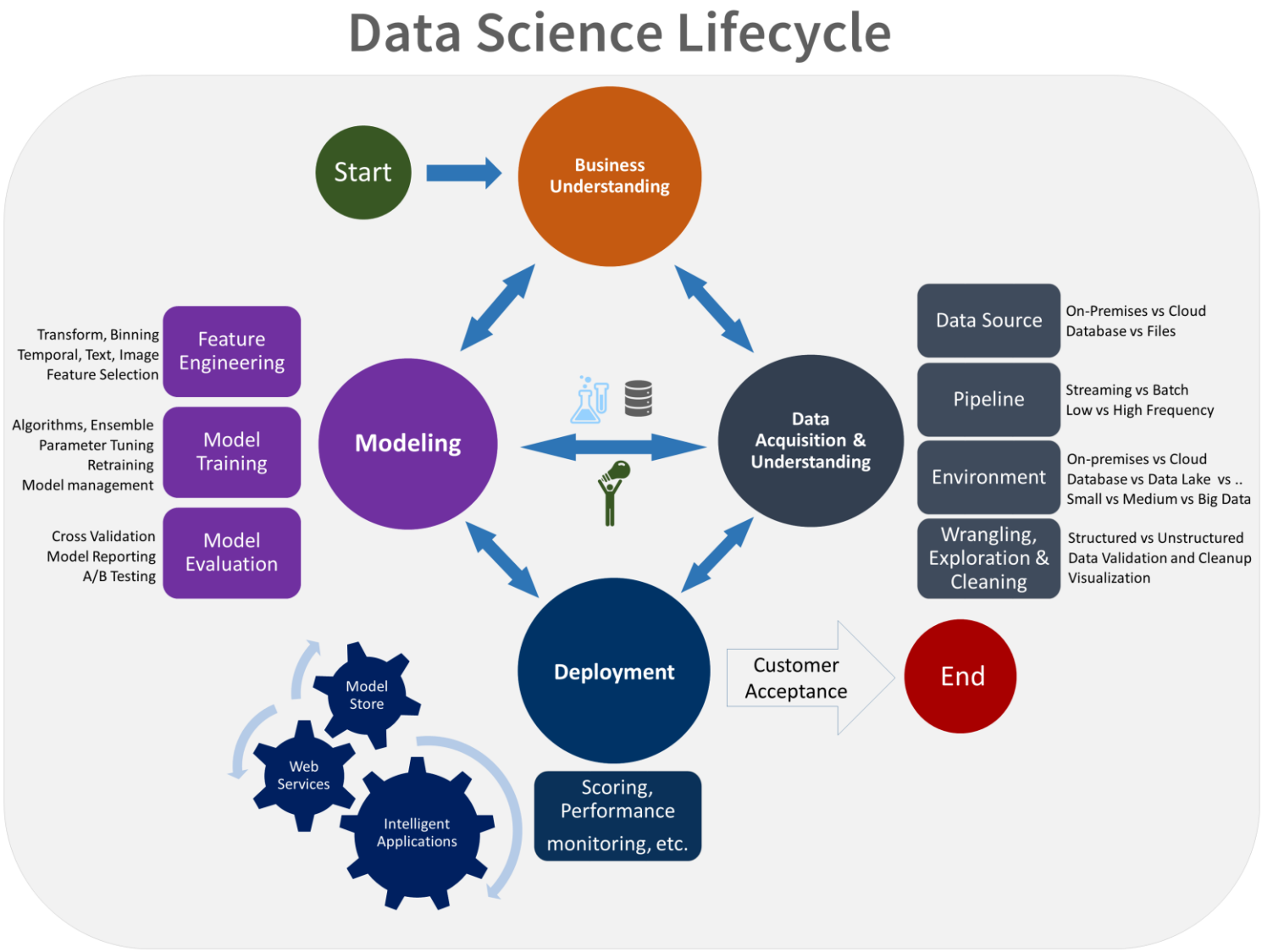
About The Course

Introduction



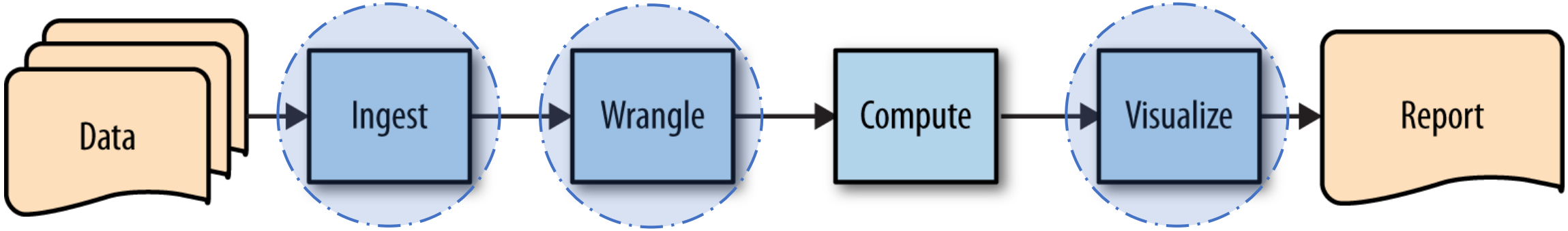
Source: *https://www.kdnuggets.com/2018/09/what-is-data-science.html*

End-to-End Process



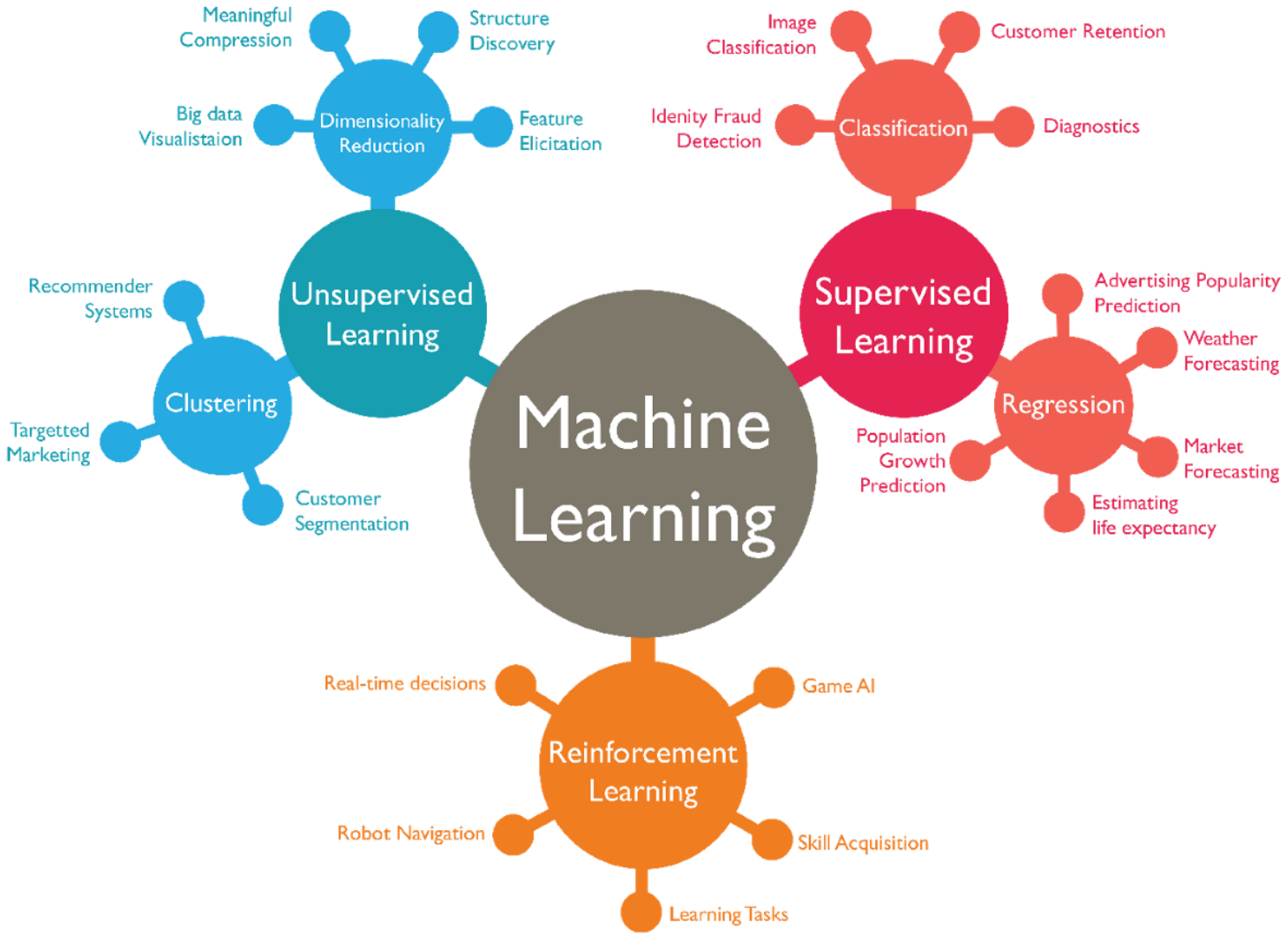
Source: *https://docs.microsoft.com/en-us/azure/machine-learning/team-data-science-process/lifecycle*

Data Ingestion, Wrangling & Visualization



Typical Data Analytics Workflow

Machine Learning Algorithms

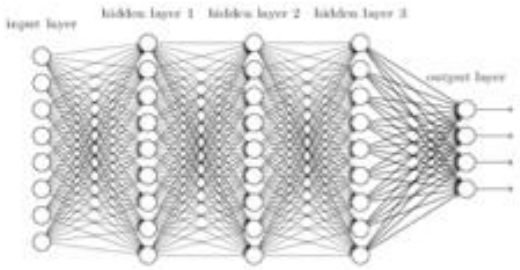


Source: *https://wordstream-files-prod.s3.amazonaws.com/s3fs-public/machine-learning.png*

Deep Learning Algorithms

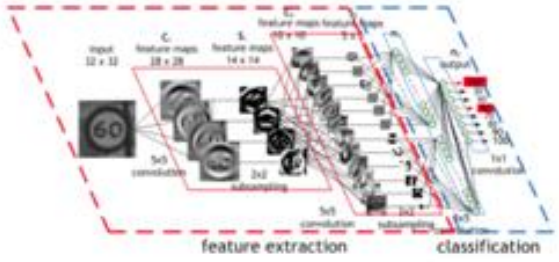
providing lift for classification and forecasting models

Deep Neural Networks



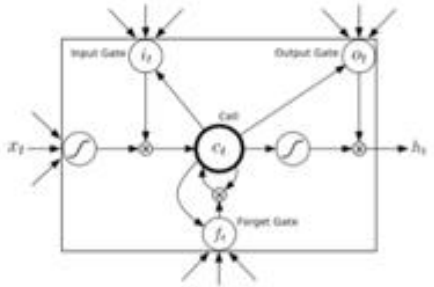
feature extraction and classification of images

Convolutional Neural Networks



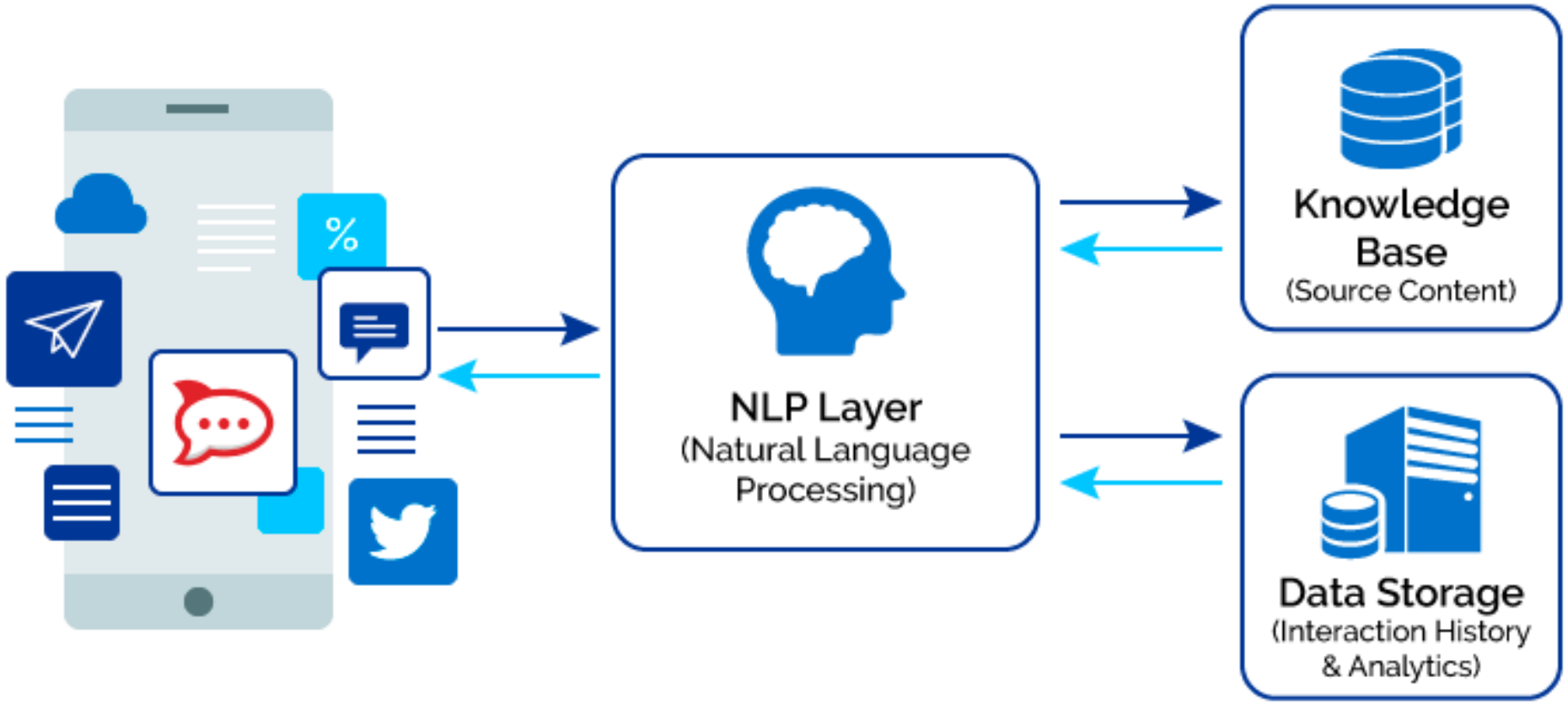
for sequence of events, language models, time series, etc.

Recurrent Neural Networks



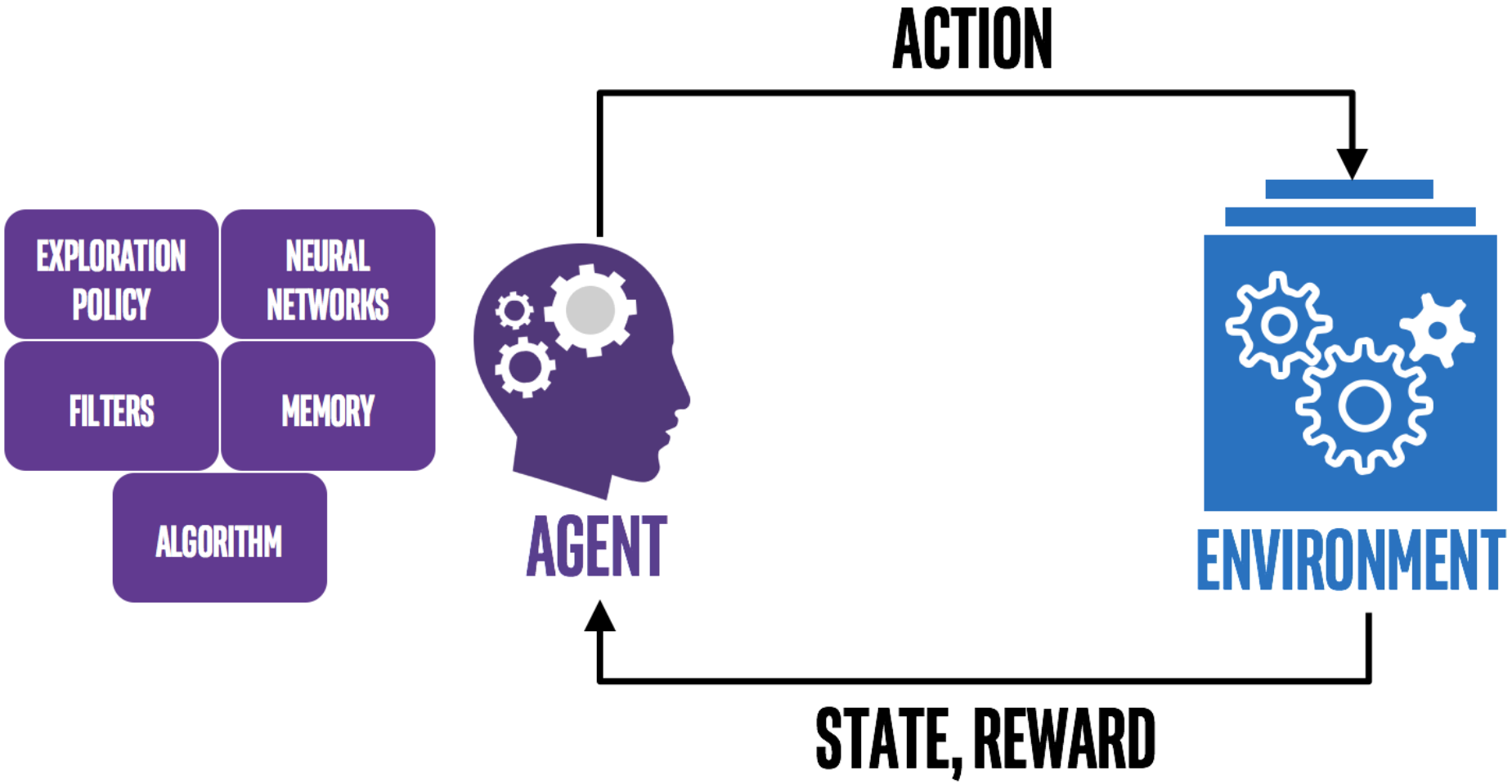
Source: *https://www.houseofbots.com/news-detail/11747-1-here-is-the-elementary-study-of-deep-learning-algorithms*

Natural Language Processing



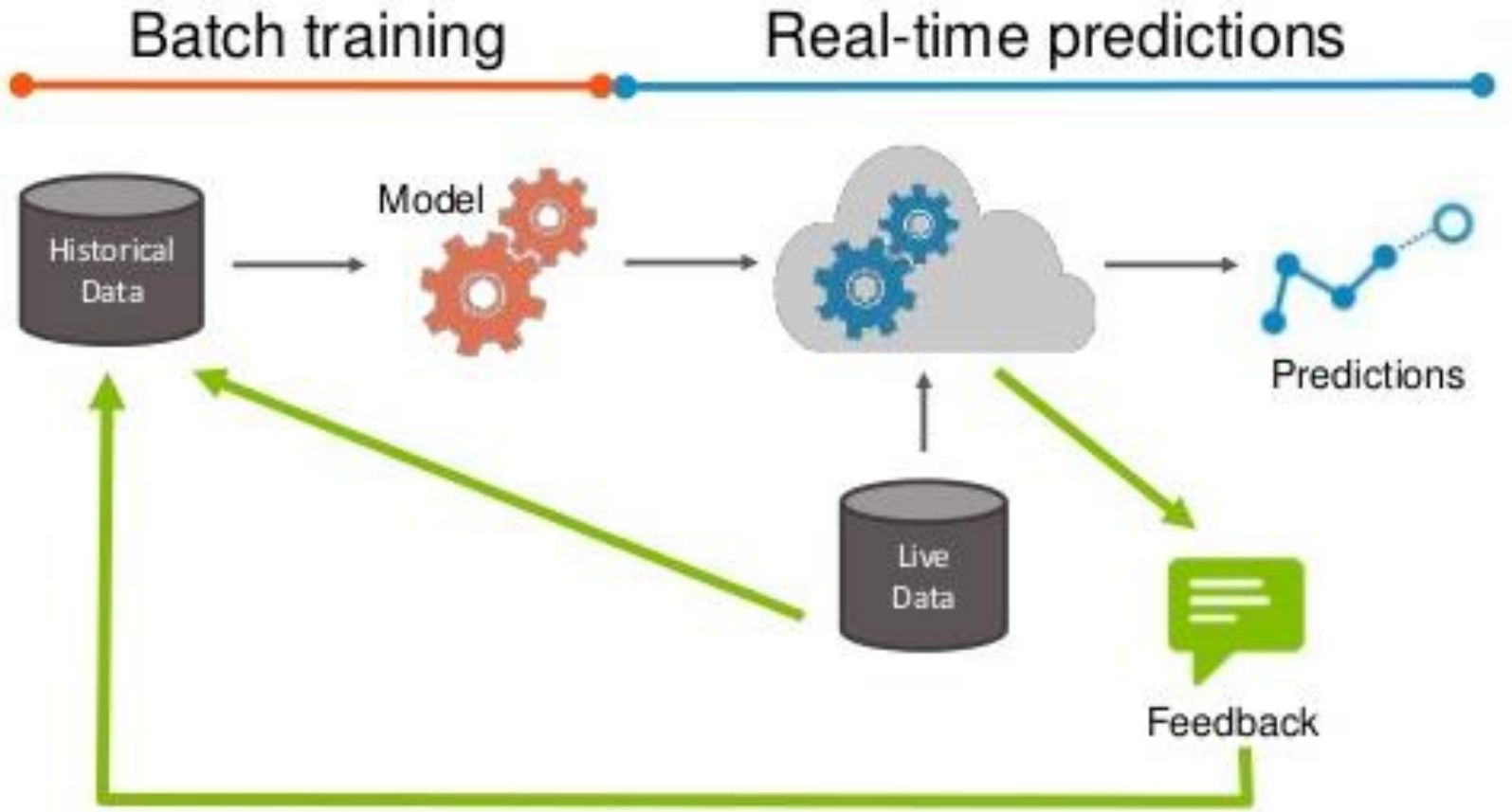
Source: https://marutitech.com/what-nlp-reasons-everyone-retail-use-it/

Reinforcement Learning



Source: *https://nervanasystems.github.io/coach/_images/design.png*

Model Training & Deployment



Source: *https://www.slideshare.net/turi-inc/model-management*

Appendix

- *Mathematics (Linear Algebra, Multivariate Calculus, Probability & Statistics)*
- *Programming (SQL, Python, PySpark)*
- *Big Data (Spark, Hive)*
- *Cloud Computing (AWS, GCP & Azure)*
- *Data Management (Strategy, Governance & Architecture)*

- *Operating System (UNIX, Linux)*
- *Algorithms & Data Structures*

Source: *https://www.kdnuggets.com/2015/02/big-data-trends-strata-hadoop-san-jose.html*

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Questions?

Thank You