

# **DS/AI Session**

## **@ Amity University**



# AGENDA



- **About Me**
- **An Interesting Story**
- **Importance of DS/AI**
- **Few Definitions**
- **Various Terminologies**
- **Interdisciplinary Field**
- **Types of Machine Learning**



- **From AI to Deep Learning**
- **Typical DS/AI Lifecycle**
- **Industry Applications**
- **My Past & Current Projects**
- **Job Opportunities**
- **How to Get into DS/AI?**



# About Me



 ankitrathi.com

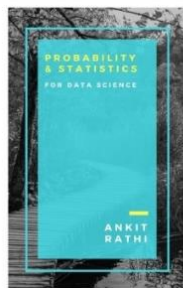


Ankit Rath

Lead Architect - DS/AI | Author | Speaker | All views personal

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SITA



HBTI, Kanpur

## Articles & activity

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### How to launch your DS/AI career in 12 weeks?



Ankit Rath

Published on LinkedIn

From a time around when DS/AI field started picking up, every other day I get at least 8-10 messages from DS/AI starters & enthusiasts on 'How can I get into DS/AI field?'. Over th ...see more

70 Likes · 4 Comments



Like



Comment



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Crossed 30K followers few days back, thanks for all the encouragement &...

Ankit shared this

62 Reactions · 4 Comments



Great Tirthajyoti, looks interesting, will try it shortly.

Ankit commented



It doesn't detail out the each and every algorithm, but covers the journey of ...

Ankit replied to a comment

[See all activity](#)

## Experience



Lead Architect

SITA

Dec 2017 – Present · 1 yr 9 mos



Principal Consultant

Genpact Headstrong Capital Markets

Jun 2016 – Dec 2017 · 1 yr 7 mos

Noida Area, India



Tech Lead

Royal Bank of Scotland

Nov 2010 – Jun 2016 · 5 yrs 8 mos

New Delhi Area, India



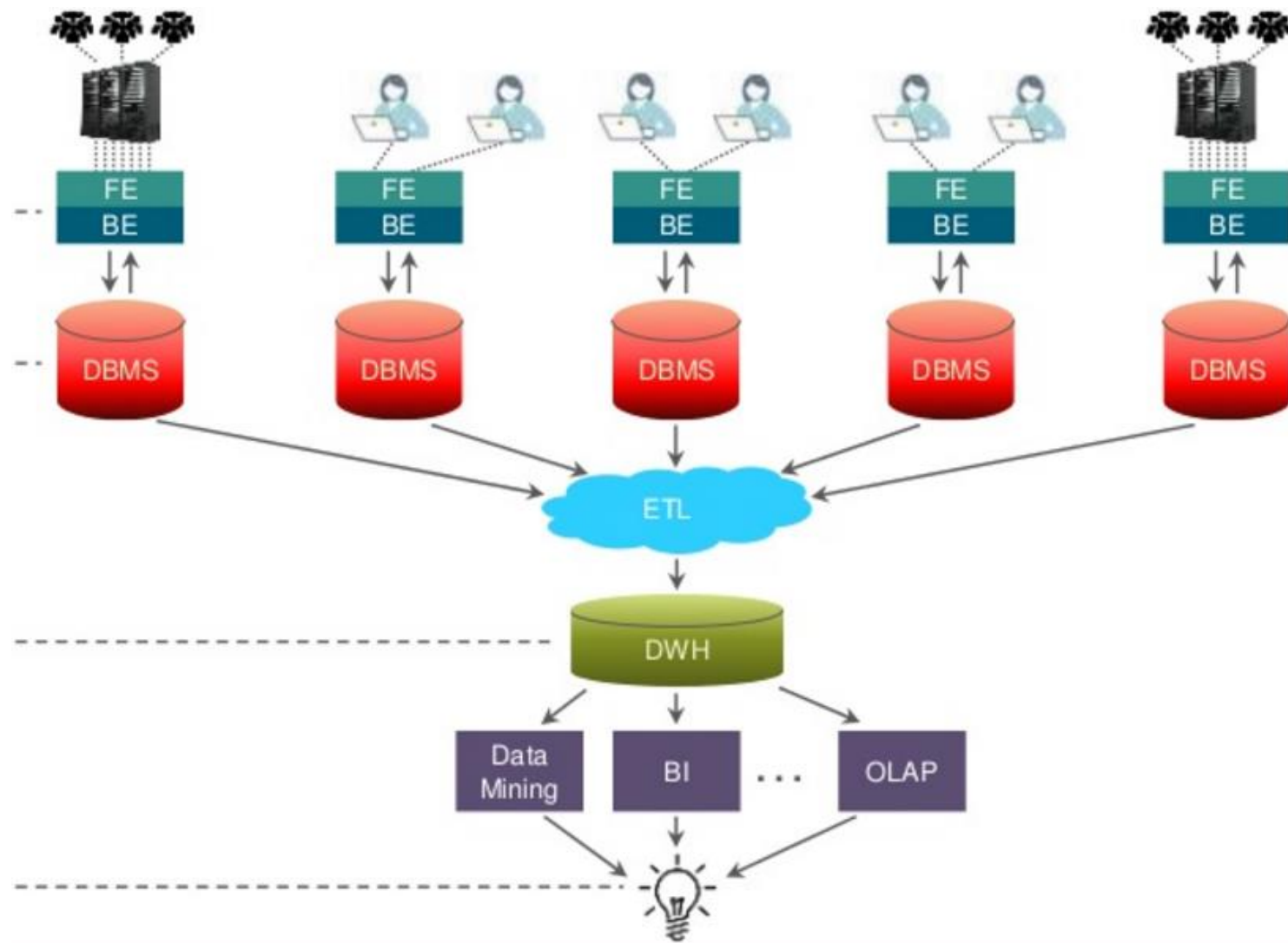
- **14+ years in Data & Analytics**
- **Currently working in SITA**
- **Worked on DBs/ETL/DWH/BI**
- **Transitioned into DS/AI in 2014**
- **Infusing intelligence in products**
- **Blogger, Author & Speaker**



**Let me start with a story...**







# Data Scientist: The Sexiest Job of the 21st Century

by **Thomas H. Davenport** and **D.J. Patil**

FROM THE OCTOBER 2012 ISSUE



Home > Data Science > Machine Learning

## Machine Learning

Created by:

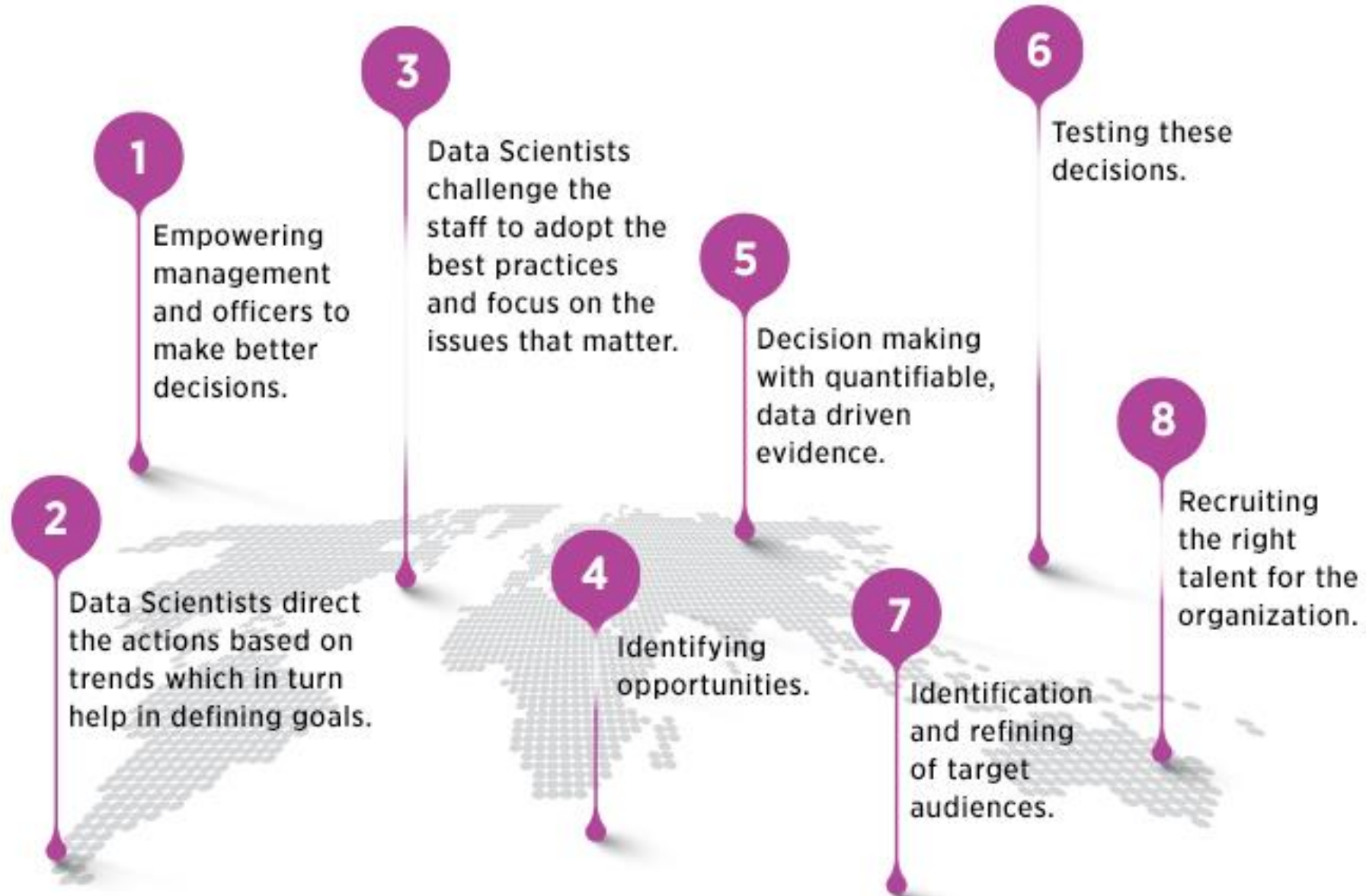


**Andrew Ng**  
American computer scientist



# Importance of DS/AI





# Few Definitions



Machine Learning is the field of study that gives computers the ability to learn without being explicitly programmed.

— Arthur Samuel, *1959*

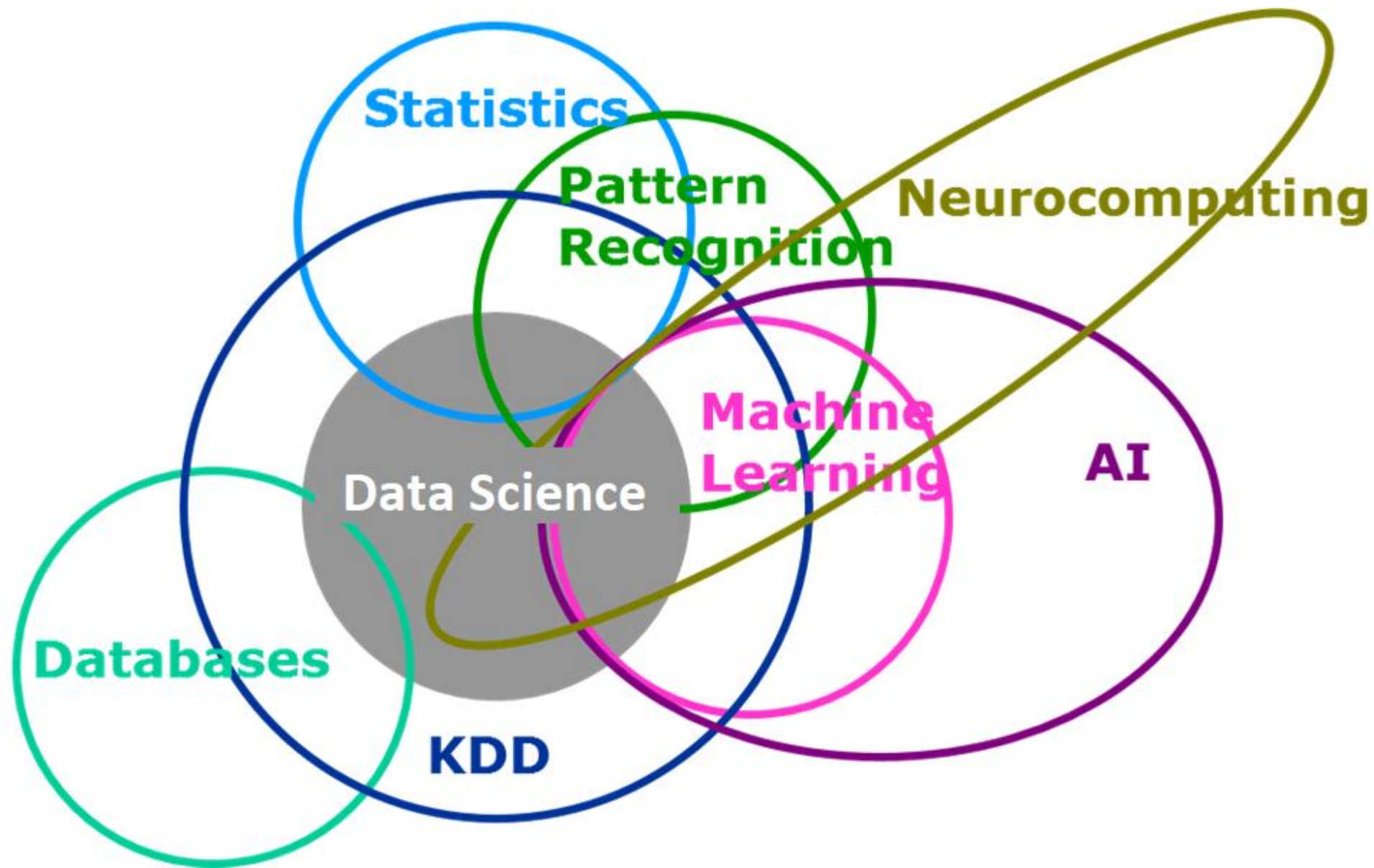
A computer program is said to learn from experience  $E$  with respect to some task  $T$  and some performance measure  $P$ , if its performance on  $T$ , as measured by  $P$ , improves with experience  $E$ .

— Tom Mitchell, *1997*



# Various Terminologies

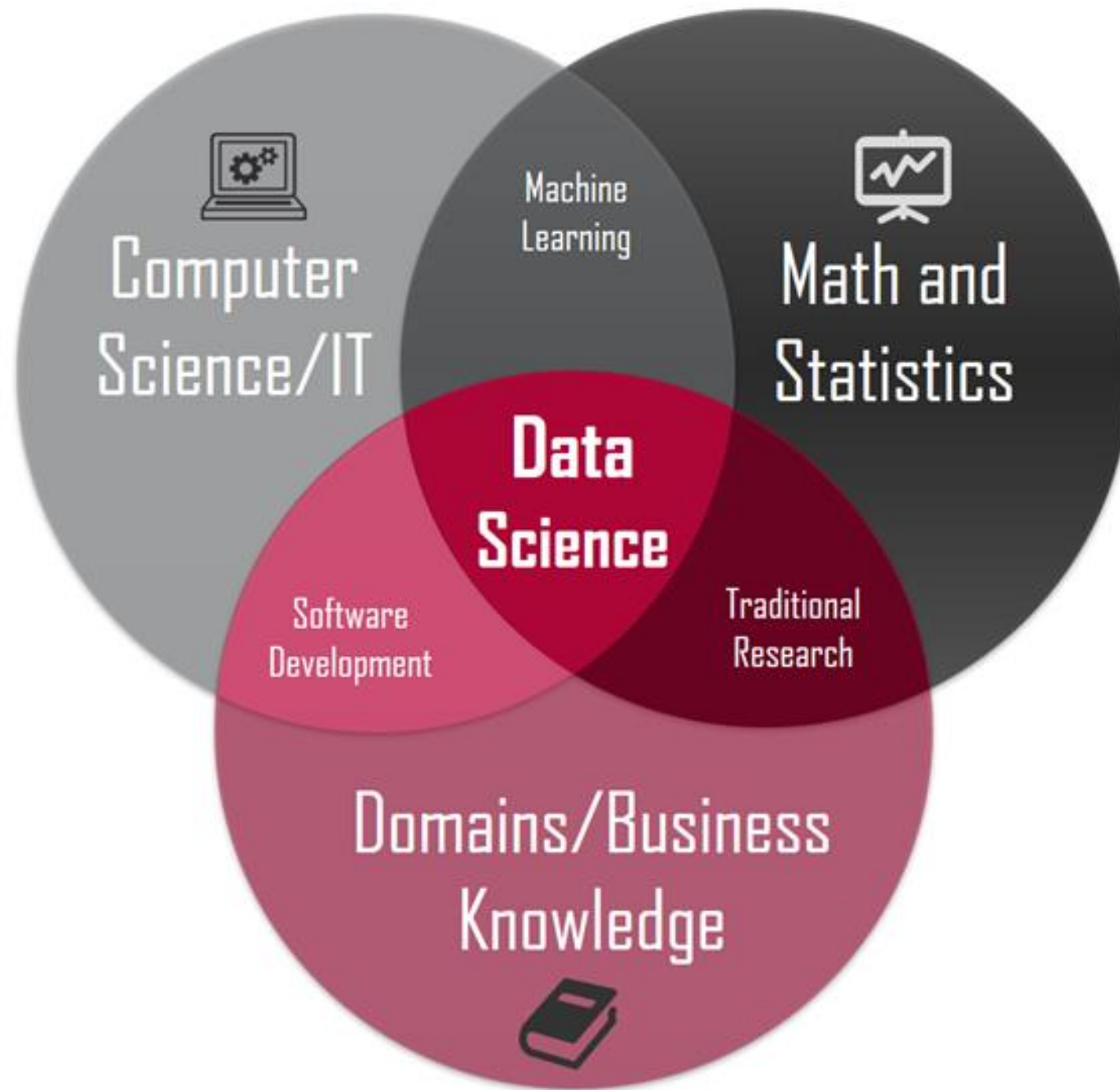






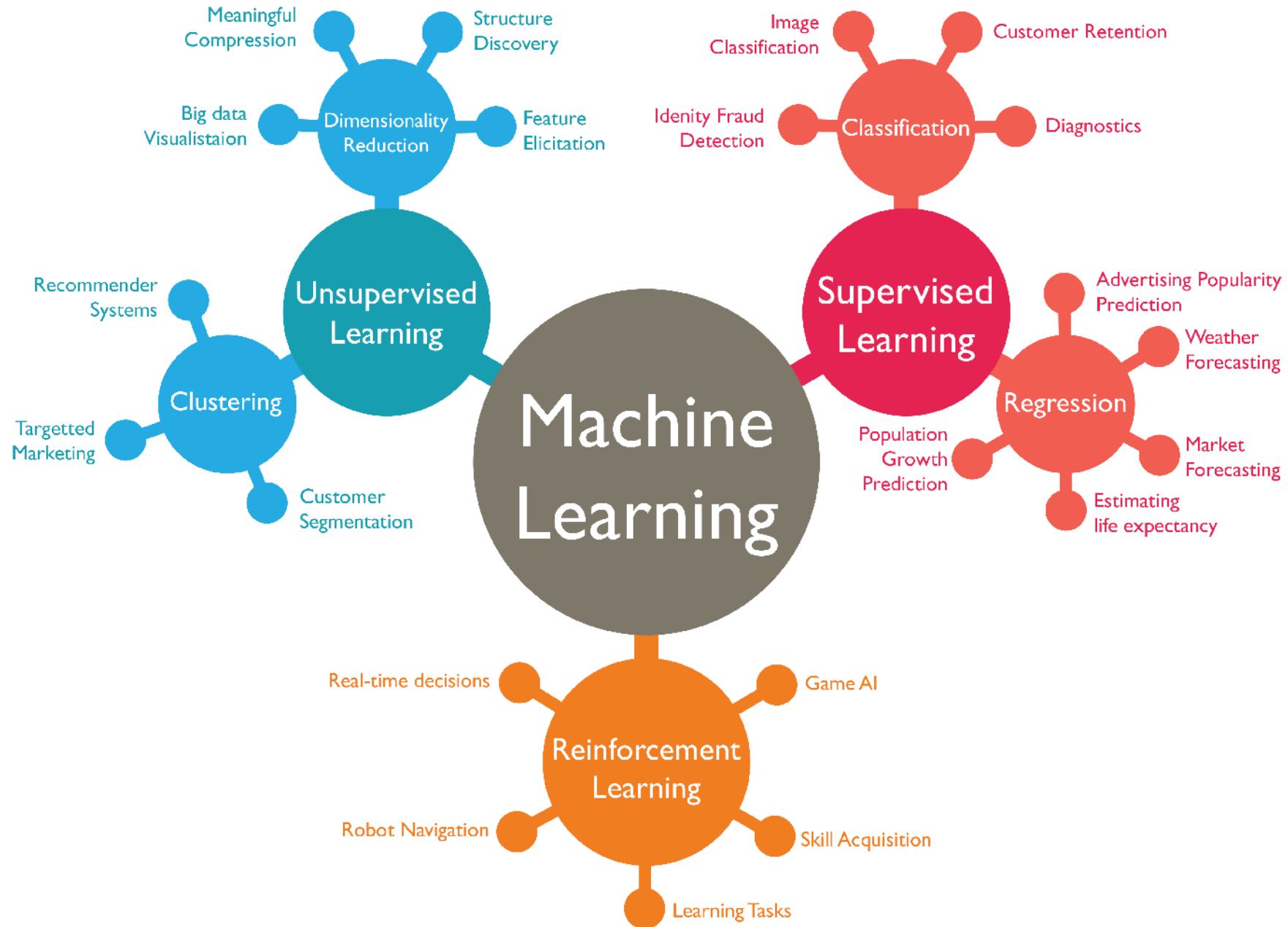
# Interdisciplinary Field





# Types of Machine Learning



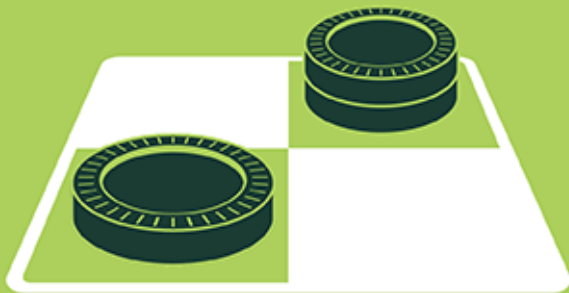


# From AI to Deep Learning



# ARTIFICIAL INTELLIGENCE

Early artificial intelligence stirs excitement.



# MACHINE LEARNING

Machine learning begins to flourish.



# DEEP LEARNING

Deep learning breakthroughs drive AI boom.



1950's

1960's

1970's

1980's

1990's

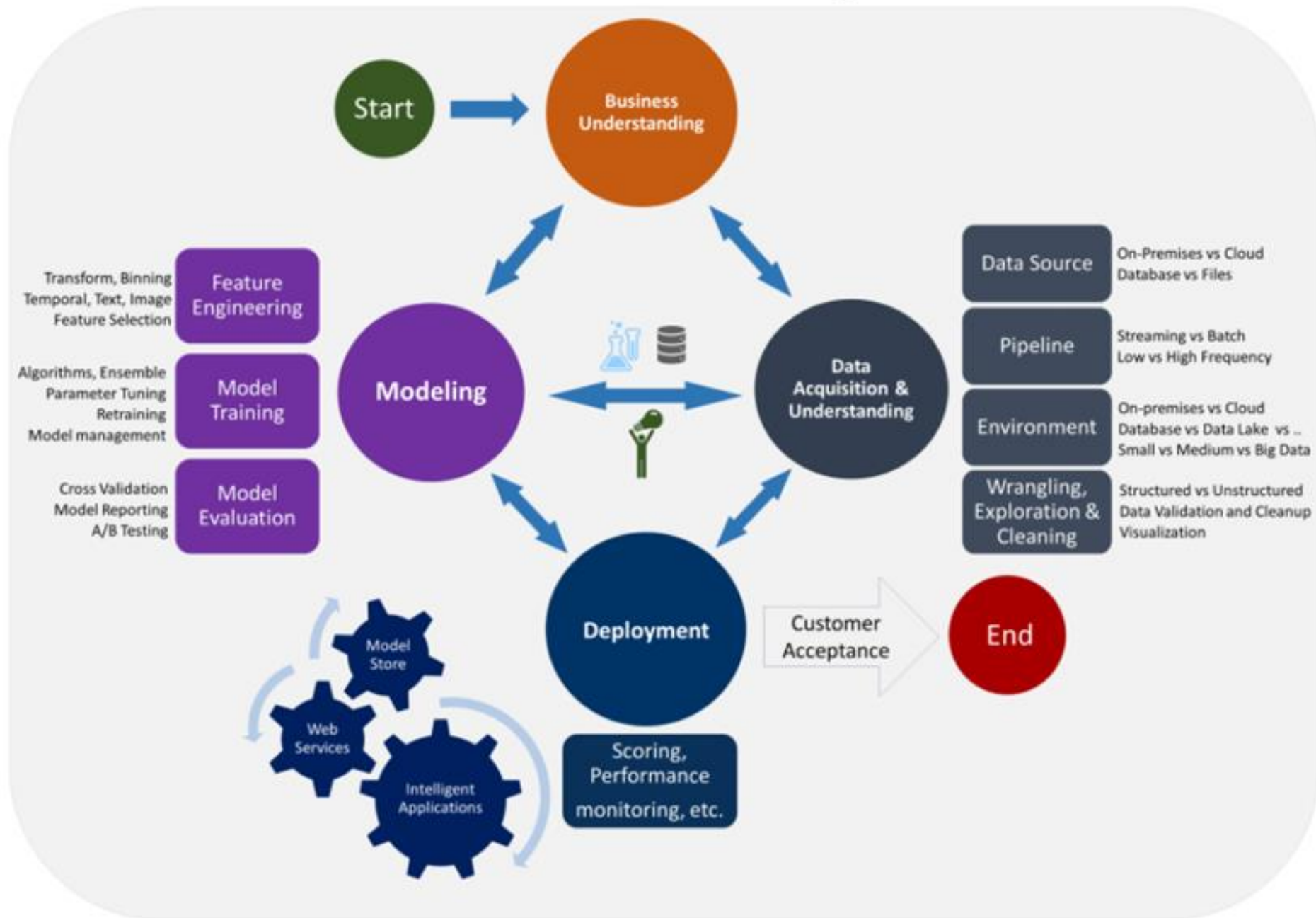
2000's

2010's



# Typical DS/AI Lifecycle

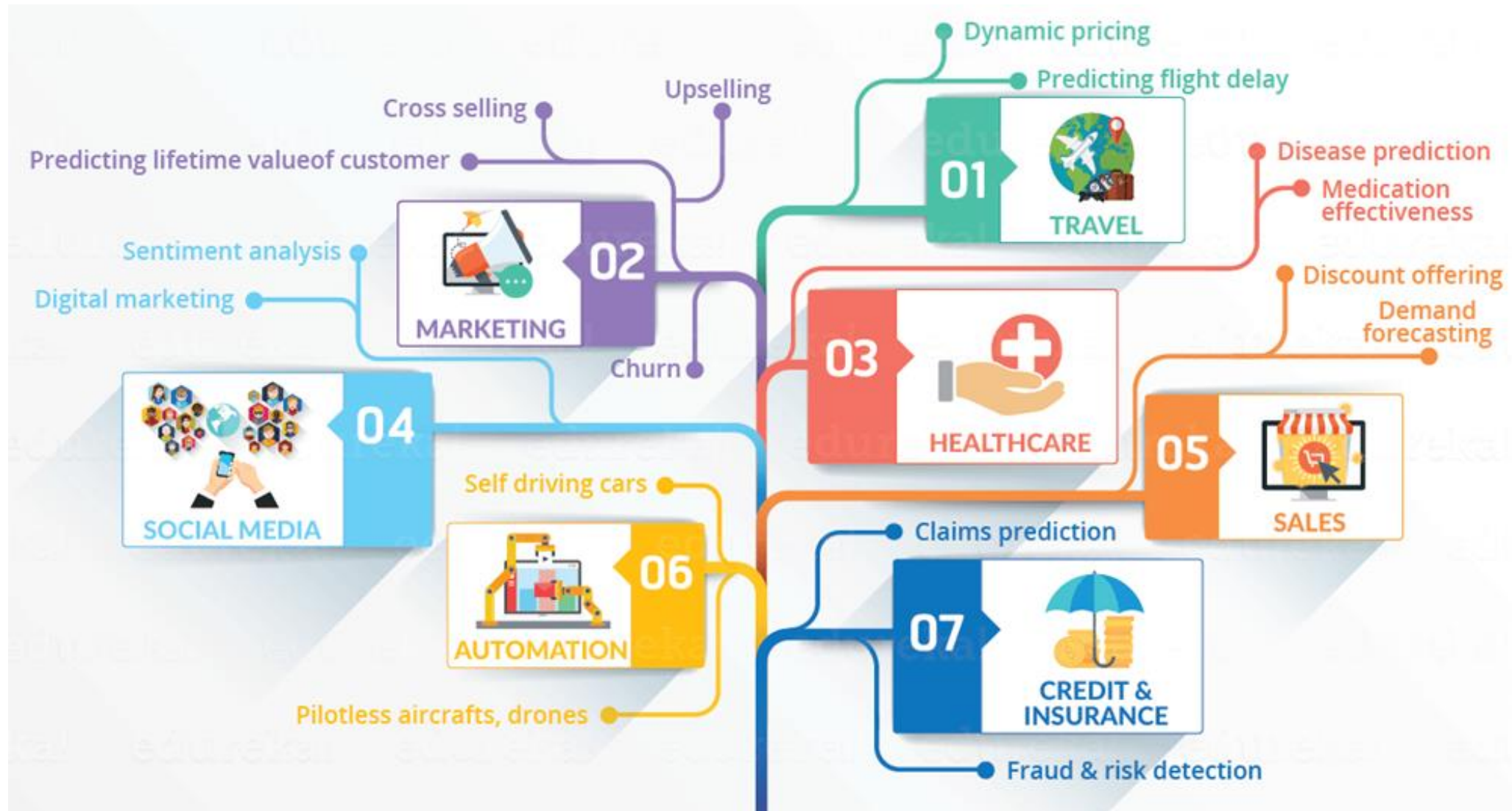






# Industry Applications





# My Past & Current Projects

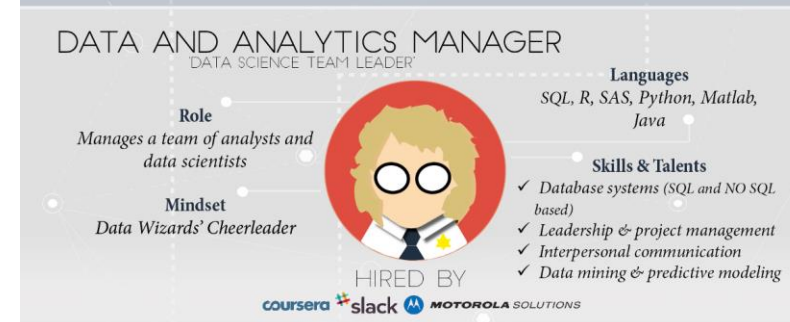
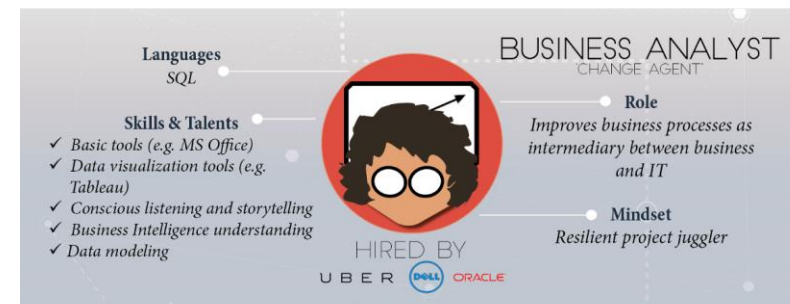
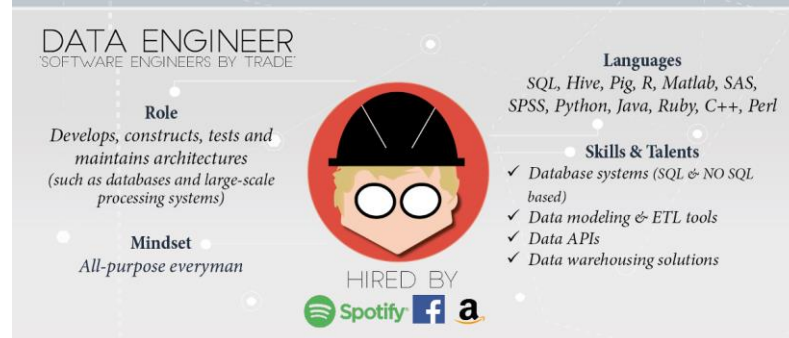
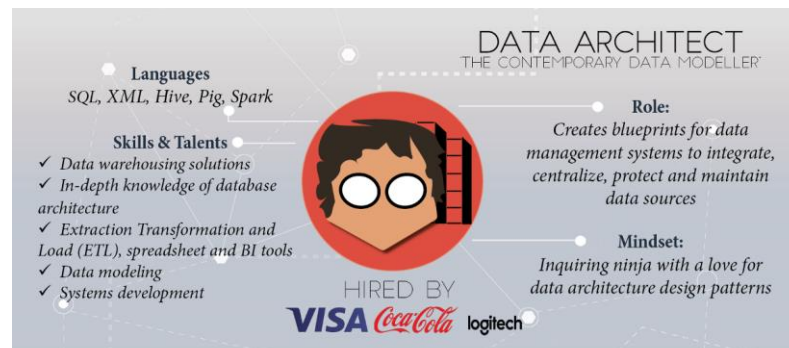
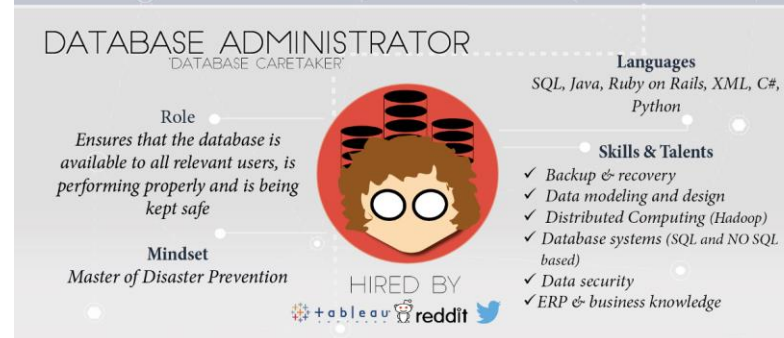
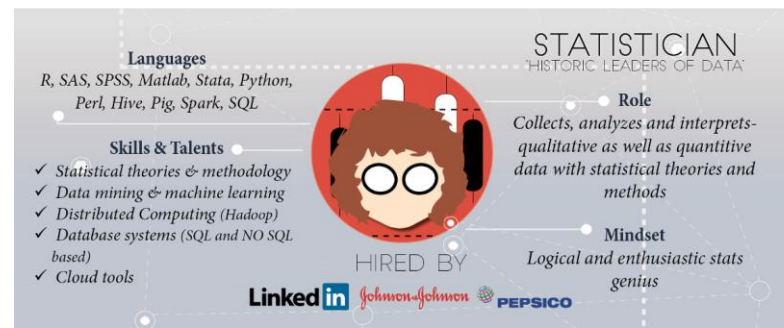
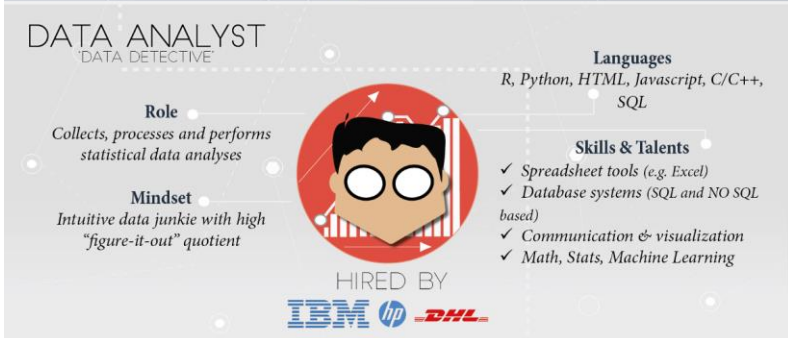


- Market-Basket Analysis [Mortgages Vs Credit Card]
- ML on Client Screening in AML
- Recommendation System for Operations
- Forecasting Dashboard for Executives
- Recommendation System for Immigration
- Flight Delays Prediction
- Stand Allocation Recommendation
- Turn-around Time Prediction



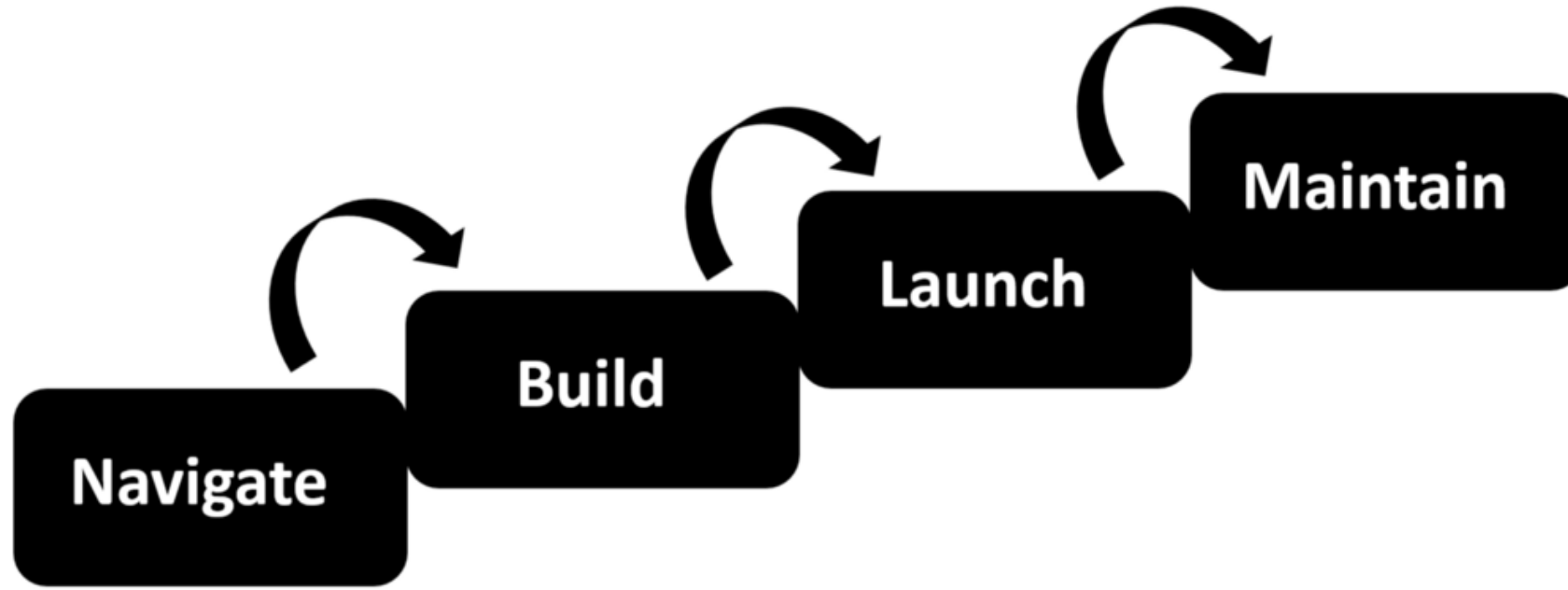
# Job Opportunities





# How to Get into DS/AI?



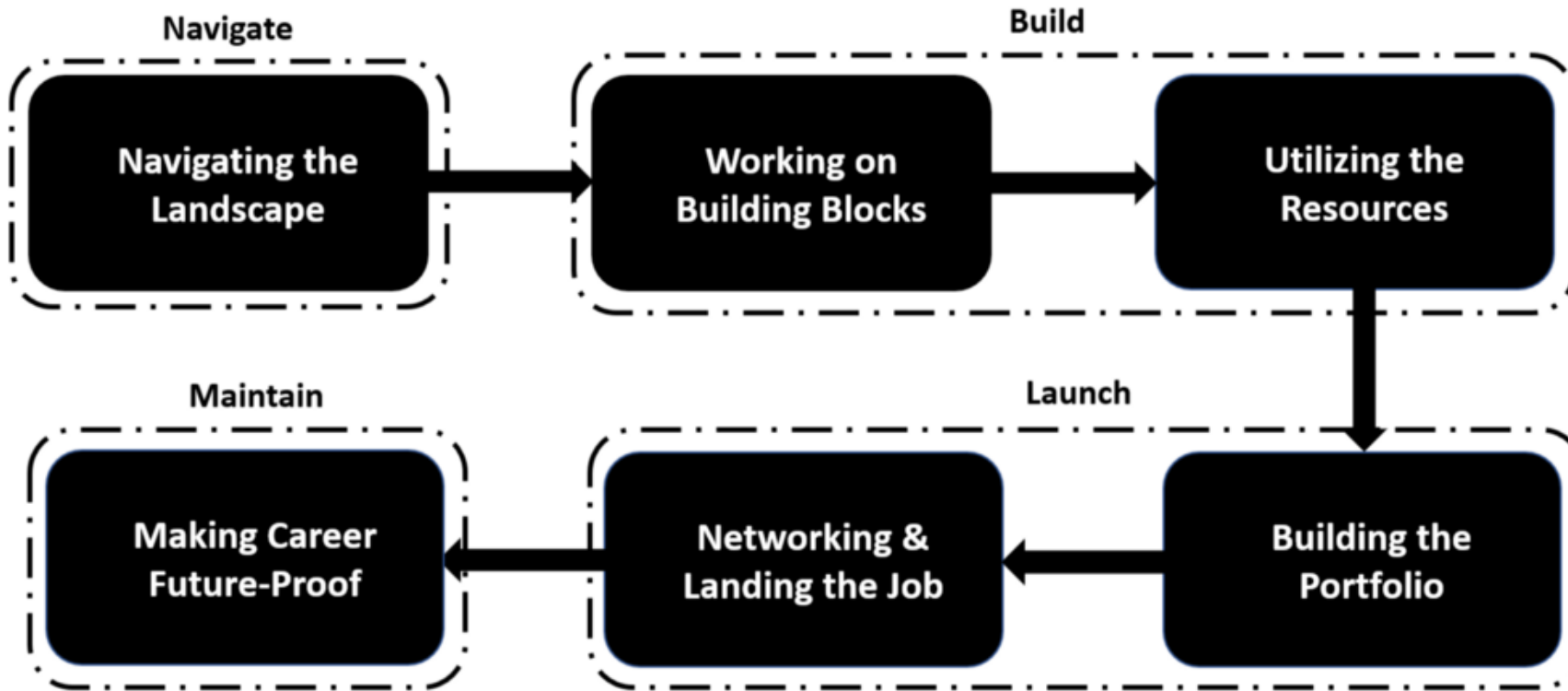


# The Learning Framework

DS/AI: Self-Starter Kit







## Understanding the Big Picture

DS/AI: Self-Starter Kit





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