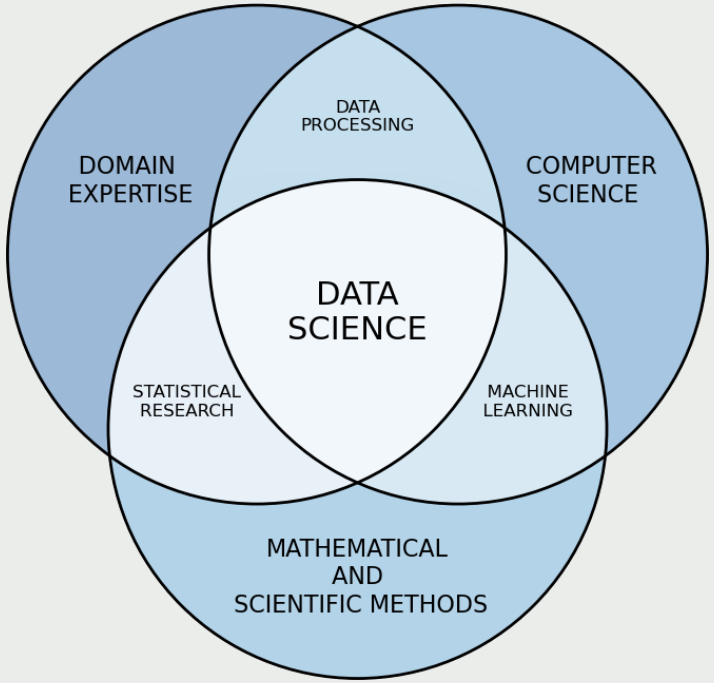
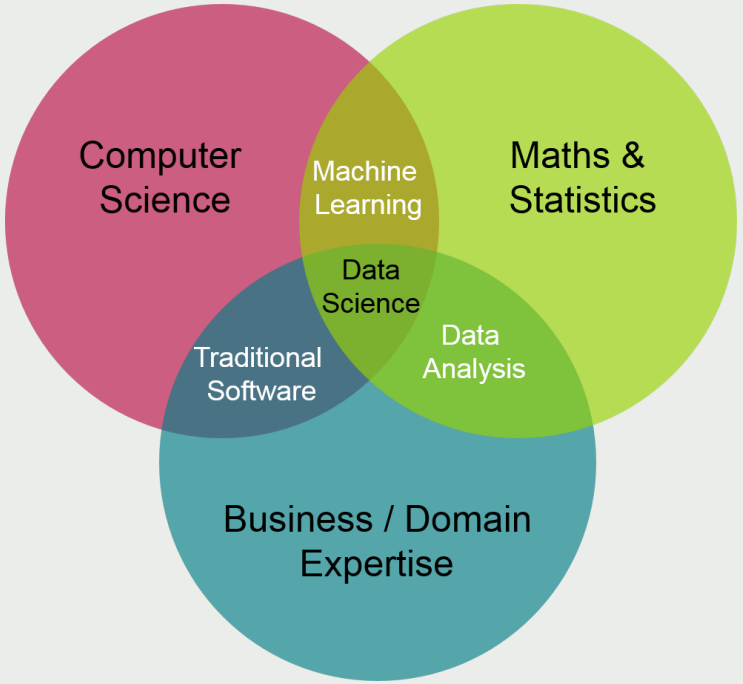
ISE 311
VERİ BİLİMİ

Dr. Öğretim Üyesi

Tuğrul TAŞCI

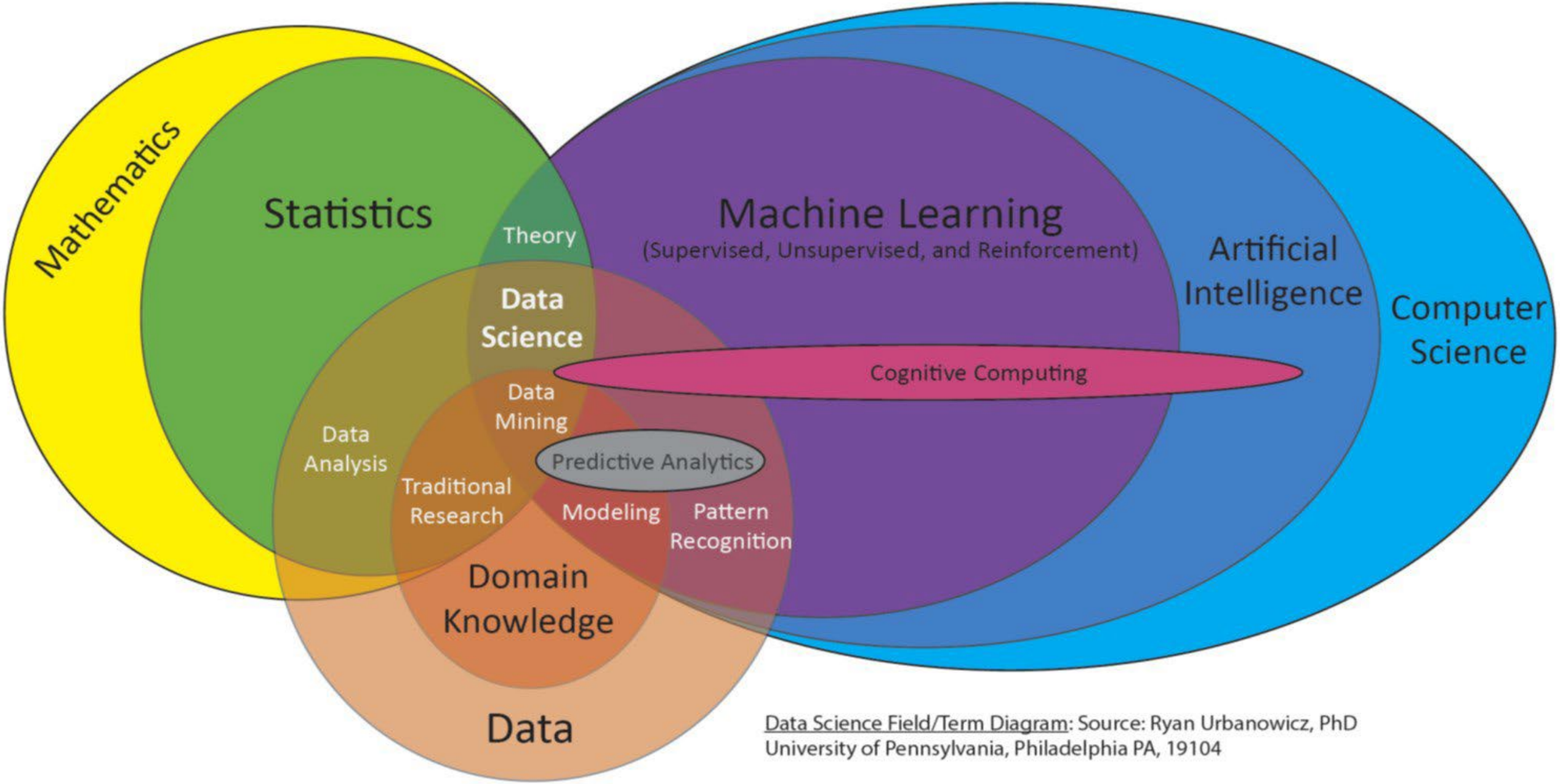
Literatür, Temel Tanım ve Kavramlar



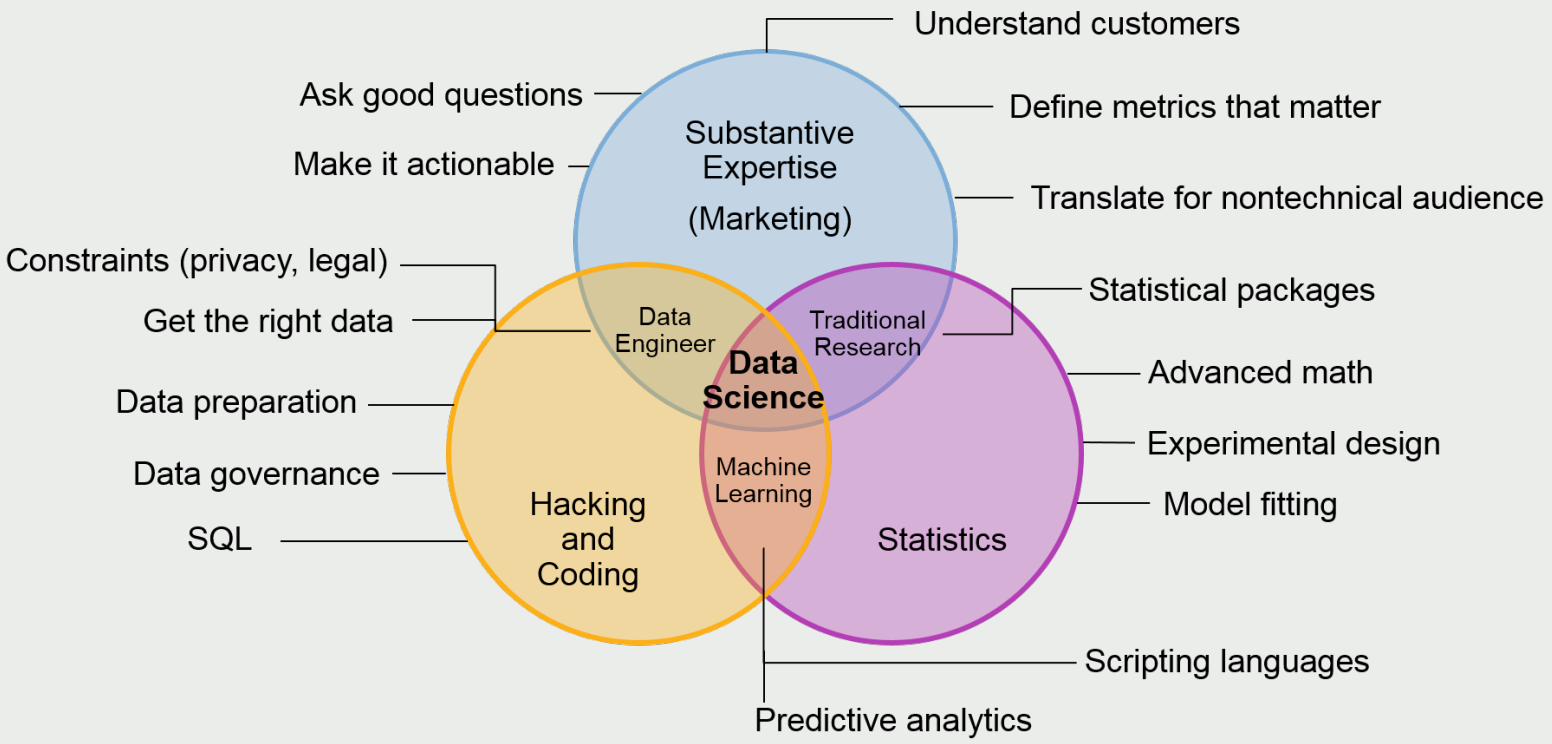


Veri Bilimi Nedir?

Faaliyet alanına ait bilgi ve tecrübe ile bilgisayar bilimleri, matematik ve istatistiğe ait yöntem ve araçlara dayalı olarak kurumsal veri kaynakları üzerinden anlamlı bilgilerin çıkarılması yoluyla iş süreçleri ile ilgili karar alma ve stratejik planlama yapmayı sağlayan disiplinler arası bir bilim ve çalışma alanıdır.

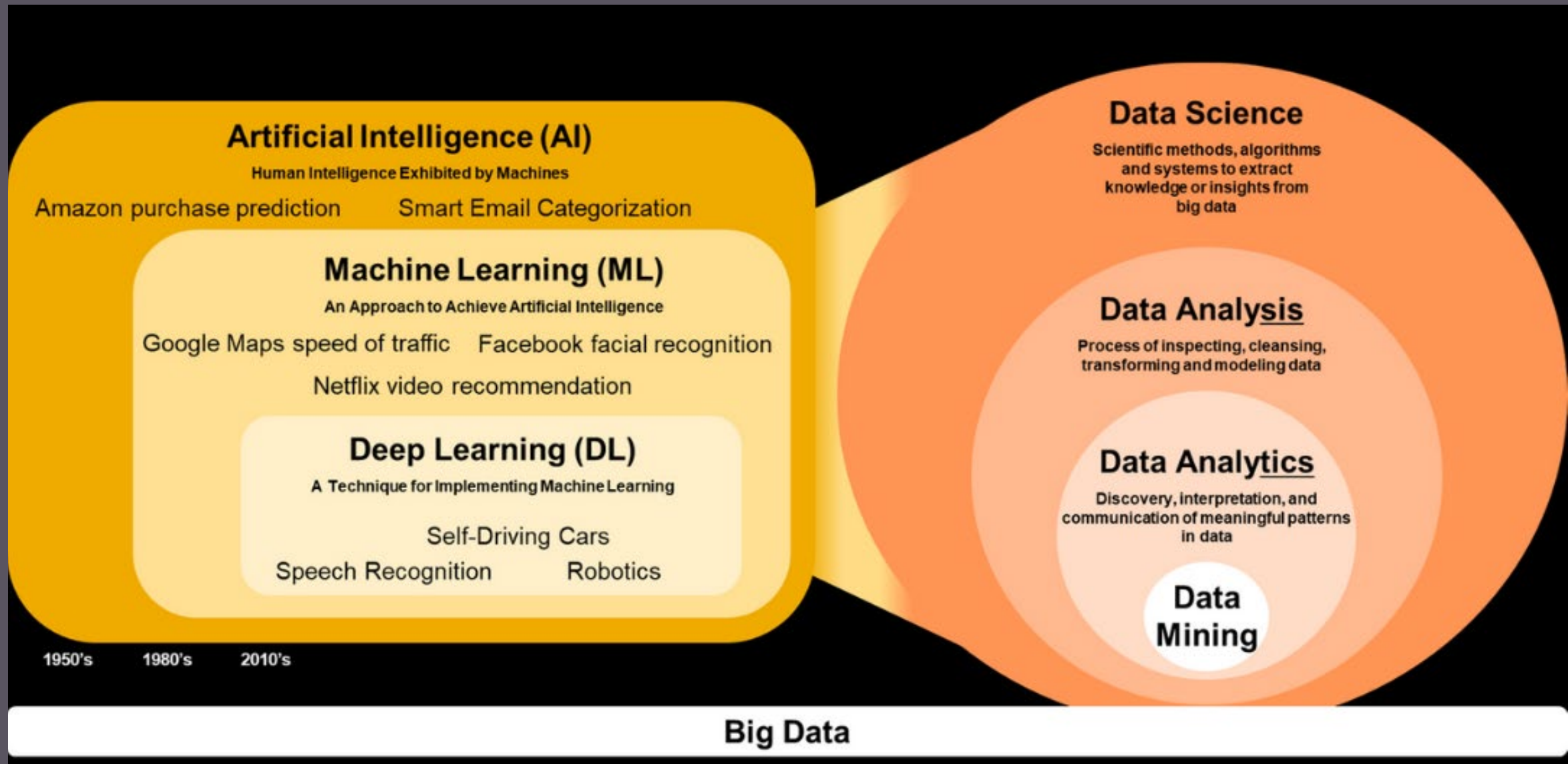


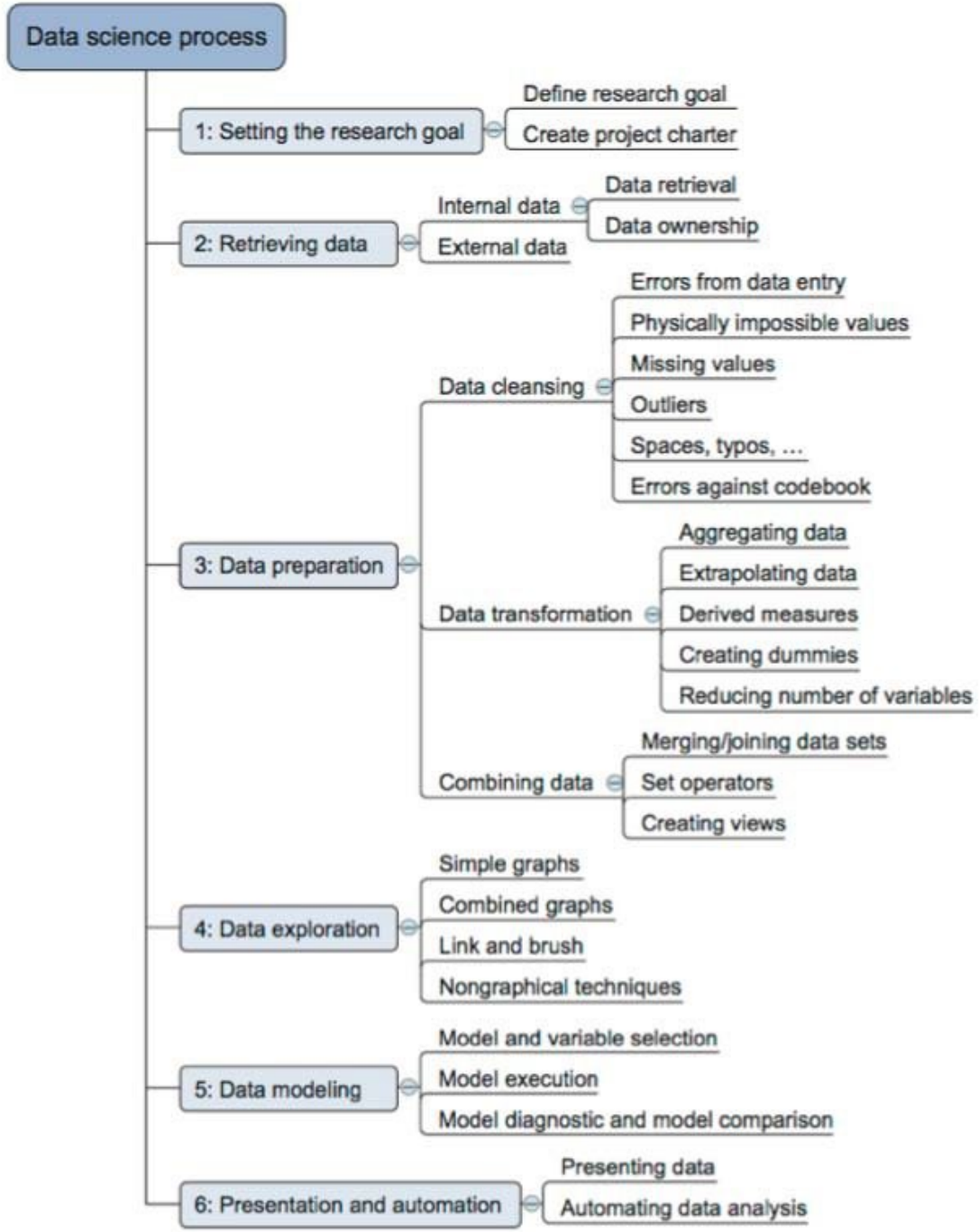
Data Science Field/Term Diagram: Source: Ryan Urbanowicz, PhD
University of Pennsylvania, Philadelphia PA, 19104



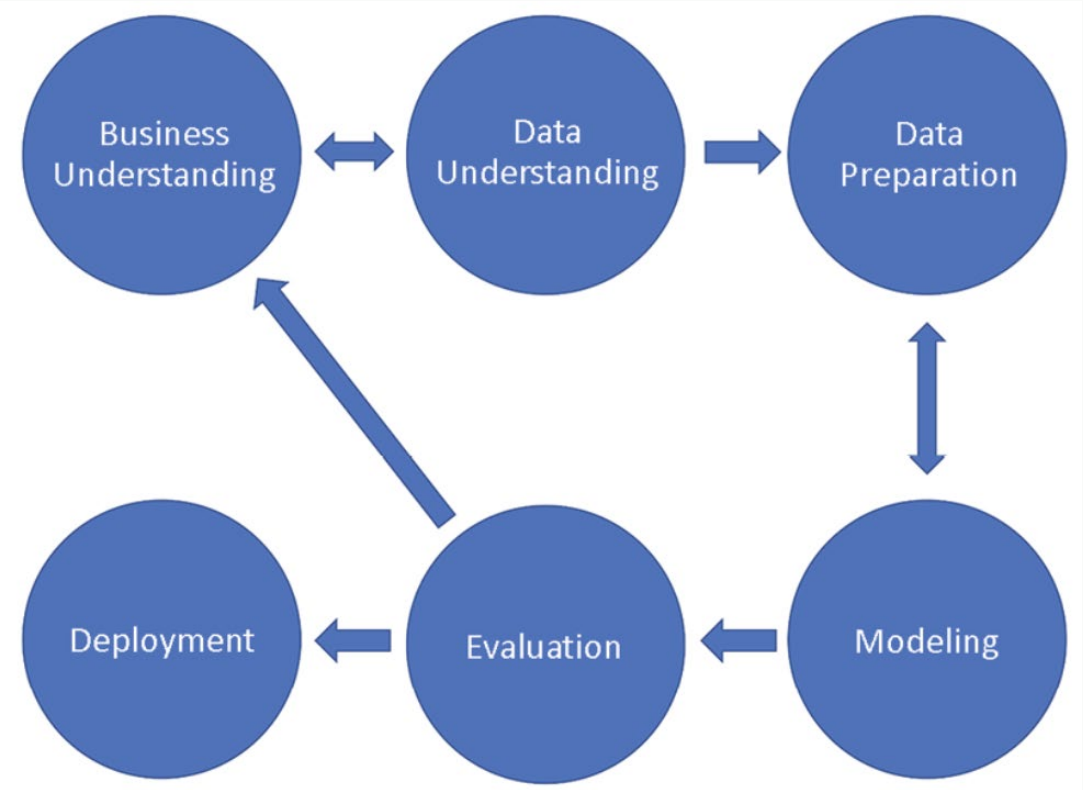
Veri Bilimi – Alt Disiplinler

Alt Disiplin & Yürütülen Süreçler


Artificial Intelligence (AI)
Human Intelligence Exhibited by Machines
Amazon purchase prediction
Smart Email Categorization
Machine Learning (ML)
An Approach to Achieve Artificial Intelligence
Google Maps speed of traffic
Facebook facial recognition
Netflix video recommendation
Deep Learning (DL)
A Technique for Implementing Machine Learning
Self-Driving Cars
Speech Recognition
Robotics
1950's
1980's
2010's
Data Science
Scientific methods, algorithms and systems to extract knowledge or insights from big data
Data Analysis
Process of inspecting, cleansing, transforming and modeling data
Data Analytics
Discovery, interpretation, and communication of meaningful patterns in data
Data Mining
Big Data



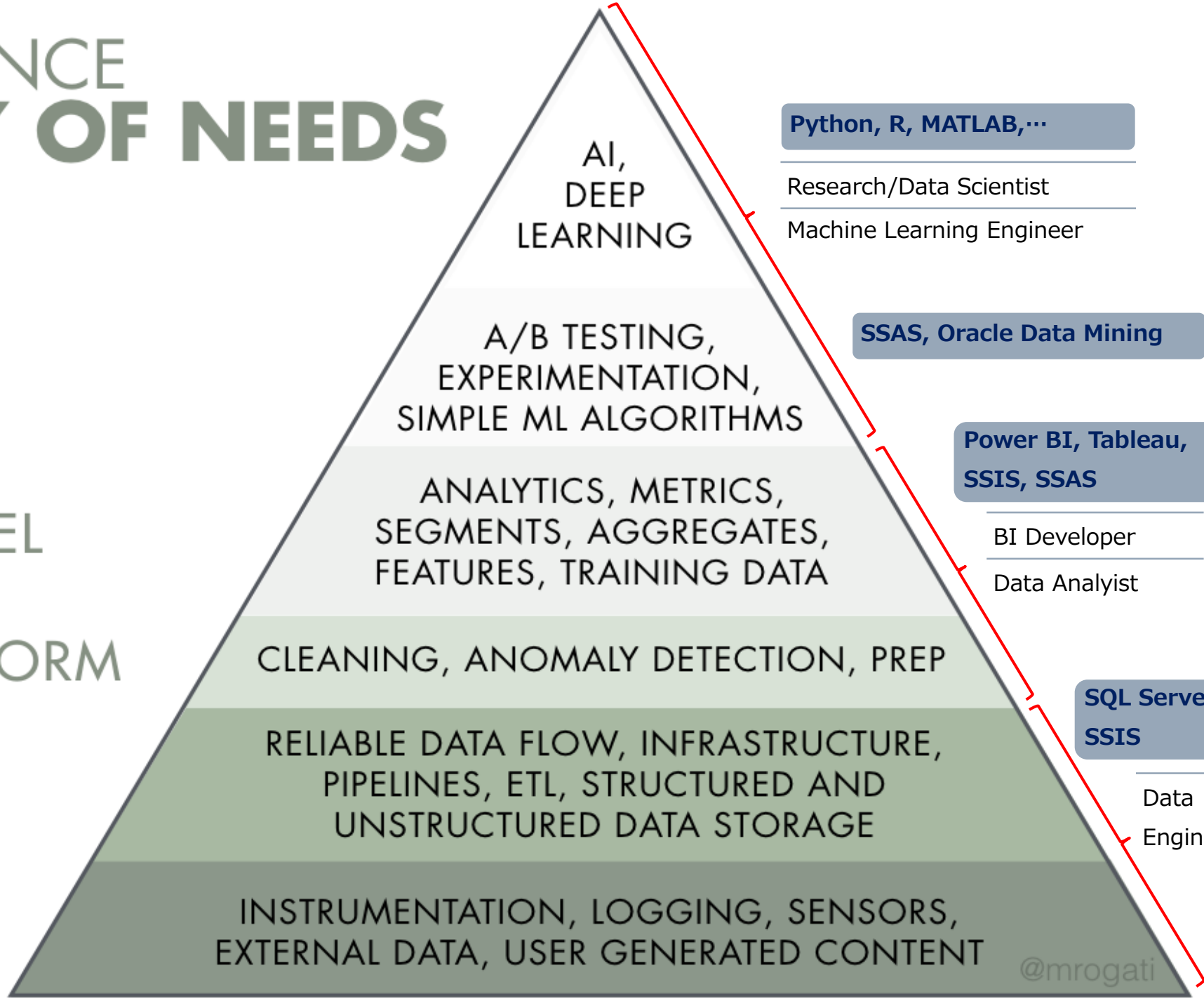
Veri Bilimi Proje Geliştirme Süreci



Veri Analitiği Tipleri

Seviyeler & Cevaplanan Sorular

THE DATA SCIENCE HIERARCHY OF NEEDS



LEARN/OPTIMIZE

AGGREGATE/LABEL

EXPLORE/TRANSFORM

MOVE/STORE

COLLECT

Python, R, MATLAB,…

Research/Data Scientist

Machine Learning Engineer

SSAS, Oracle Data Mining

Power BI, Tableau, SSIS, SSAS

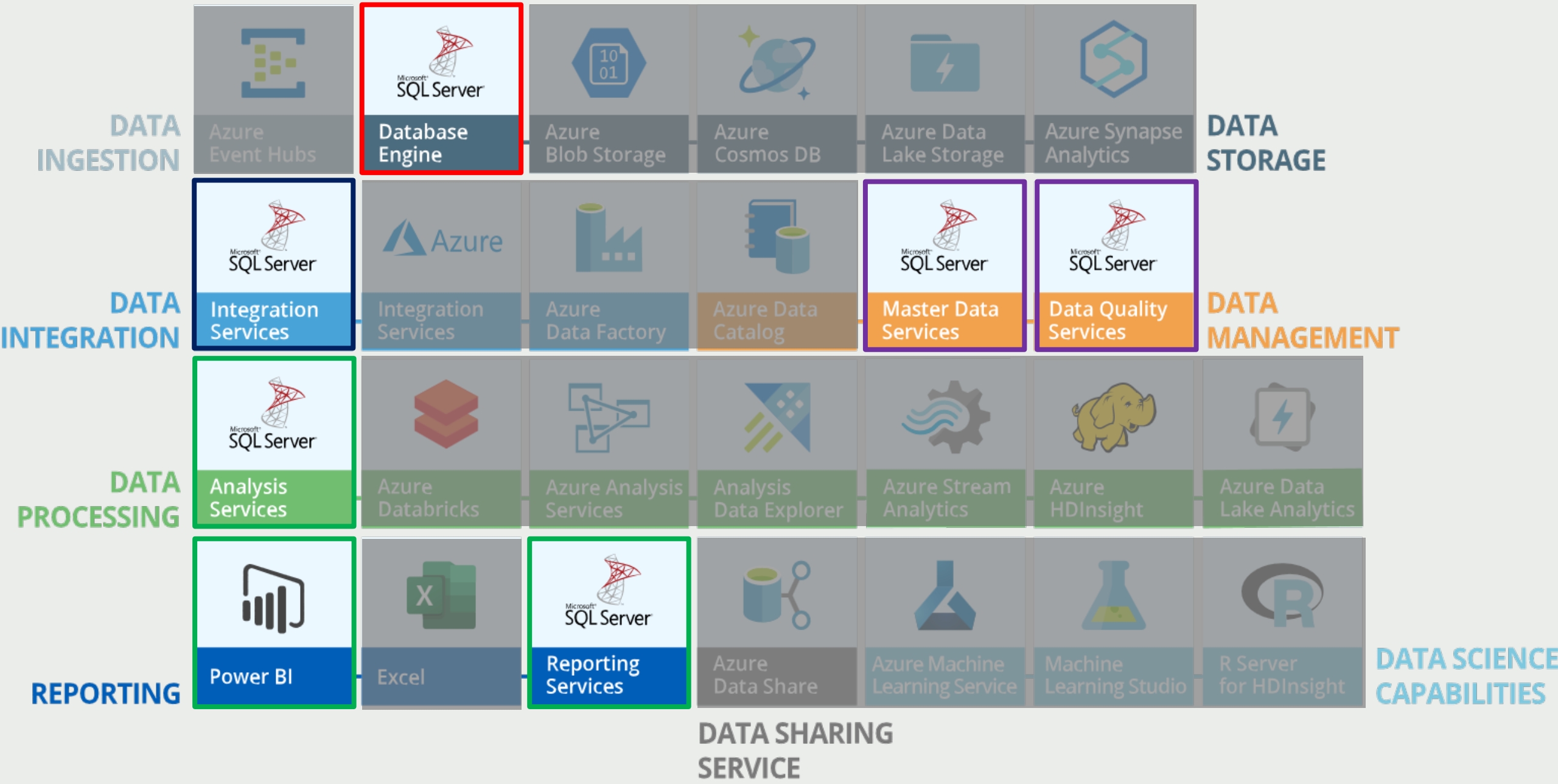
BI Developer

Data Analyist

SQL Server, SSIS

Data Engineer

MICROSOFT BUSINESS INTELLIGENCE



TEŞEKKÜRLER

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