

ARTIFICIAL INTELLIGENCE

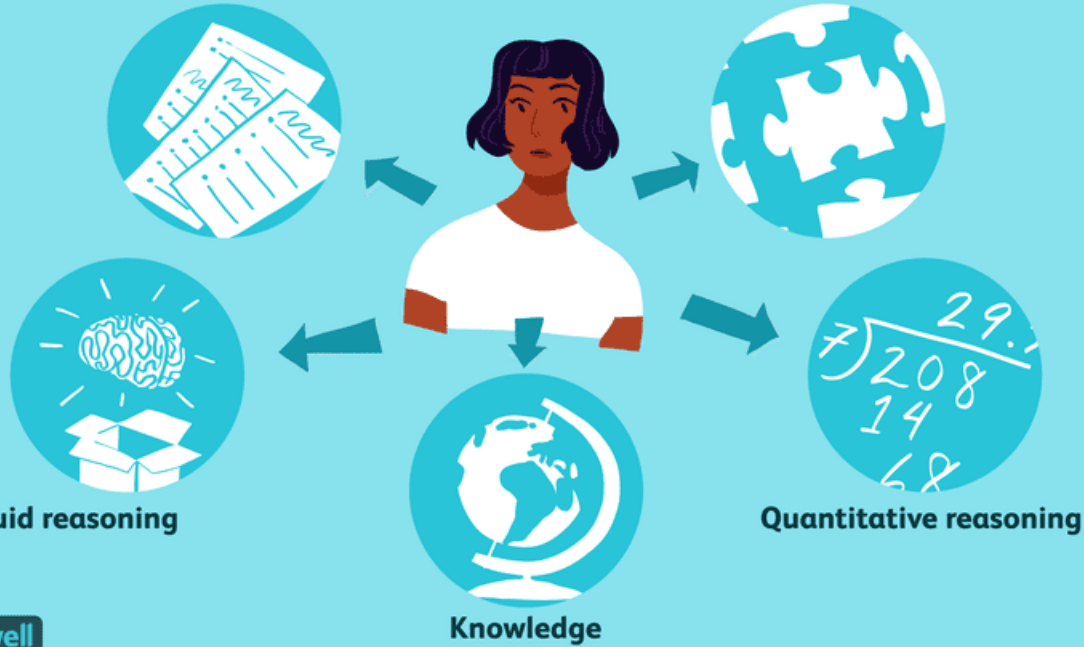
Vimal Narayanan
EAIVA Innovations



Components of General Intelligence

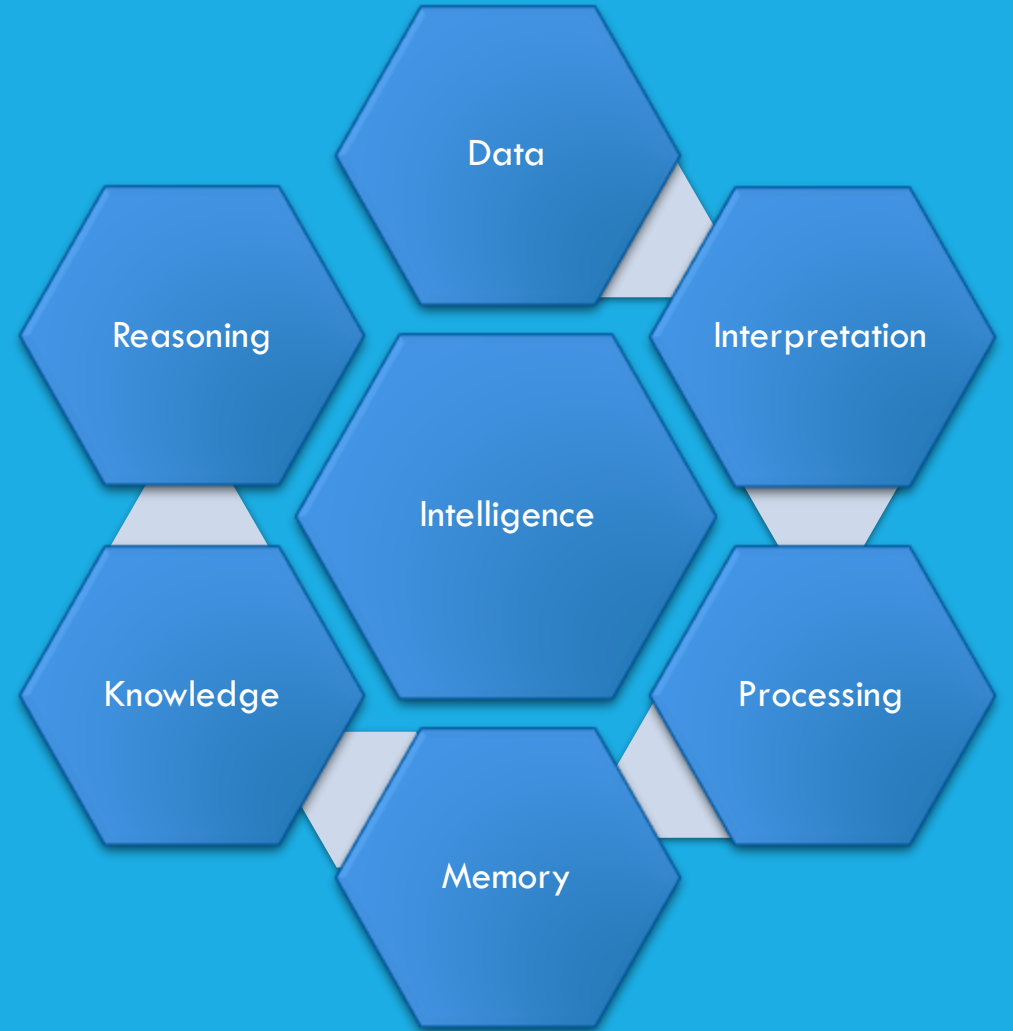
Working memory

Visual-spatial processing

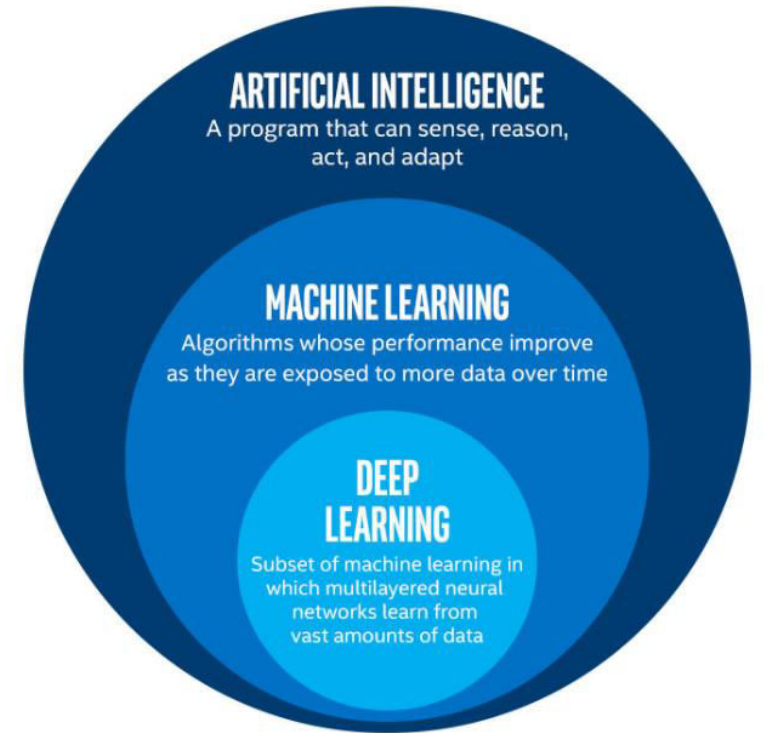
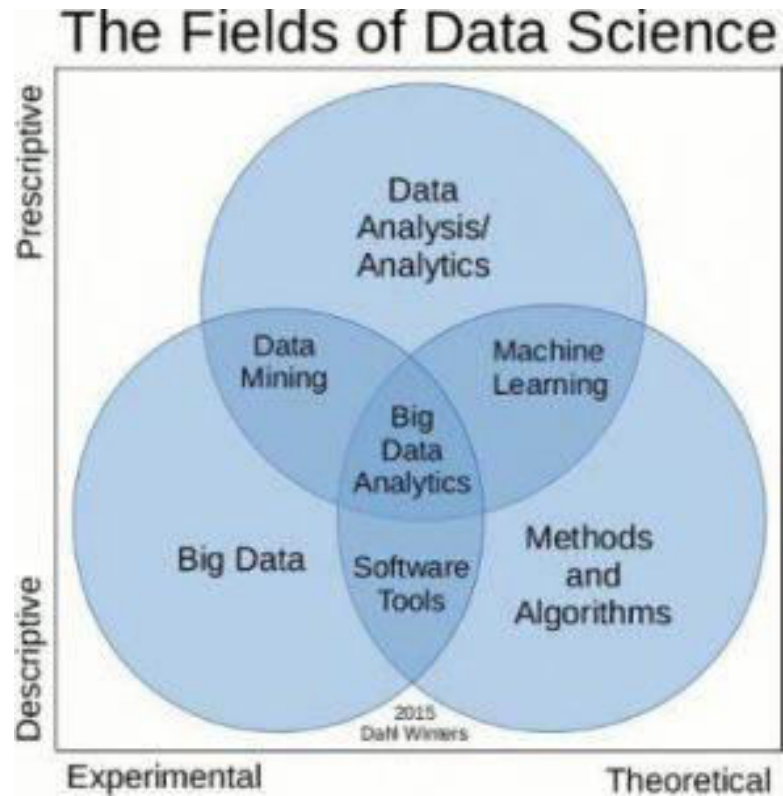


verywell

INTELLIGENCE



DEFINITIONS



HUMAN VS AI



Execution speed

Less Biased




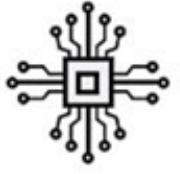
Operational Ability

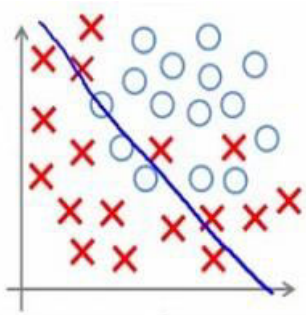
Memory



Accuracy

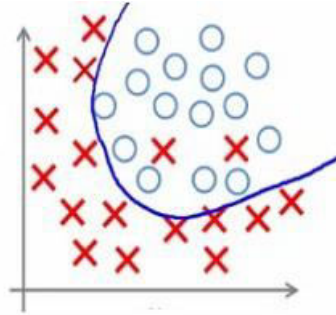
Monotonous Judgments

	Weight	Space	Processor Speed	Energy Efficiency
	3 pounds (1.4 kg)	1/6 basketball (80 cubic inches or 1,300 cm ³)	Up to 1,000,000 trillion operations per second	20 watts
	150 tons	Basketball court (cabinets over 4,350 square feet, or 400 m ²)	93,000 trillion operations per second	10 million watts

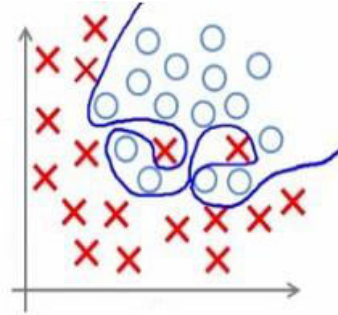


Under-fitting

(too simple to explain the variance)

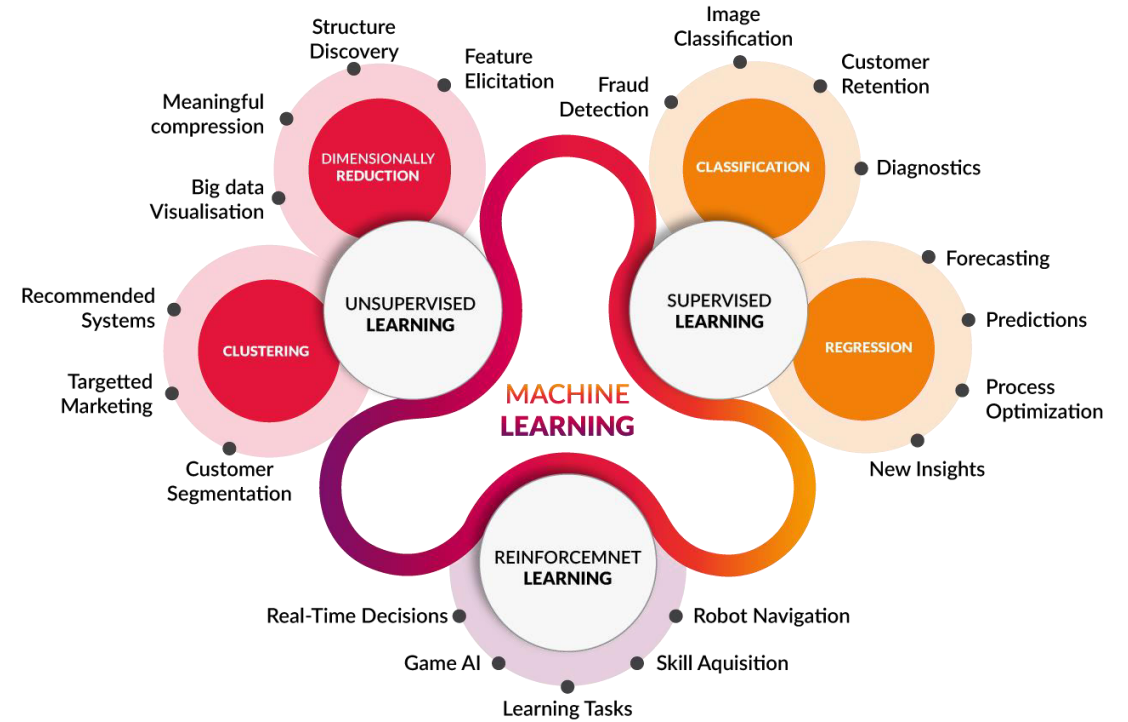


Appropriate-fitting



Over-fitting

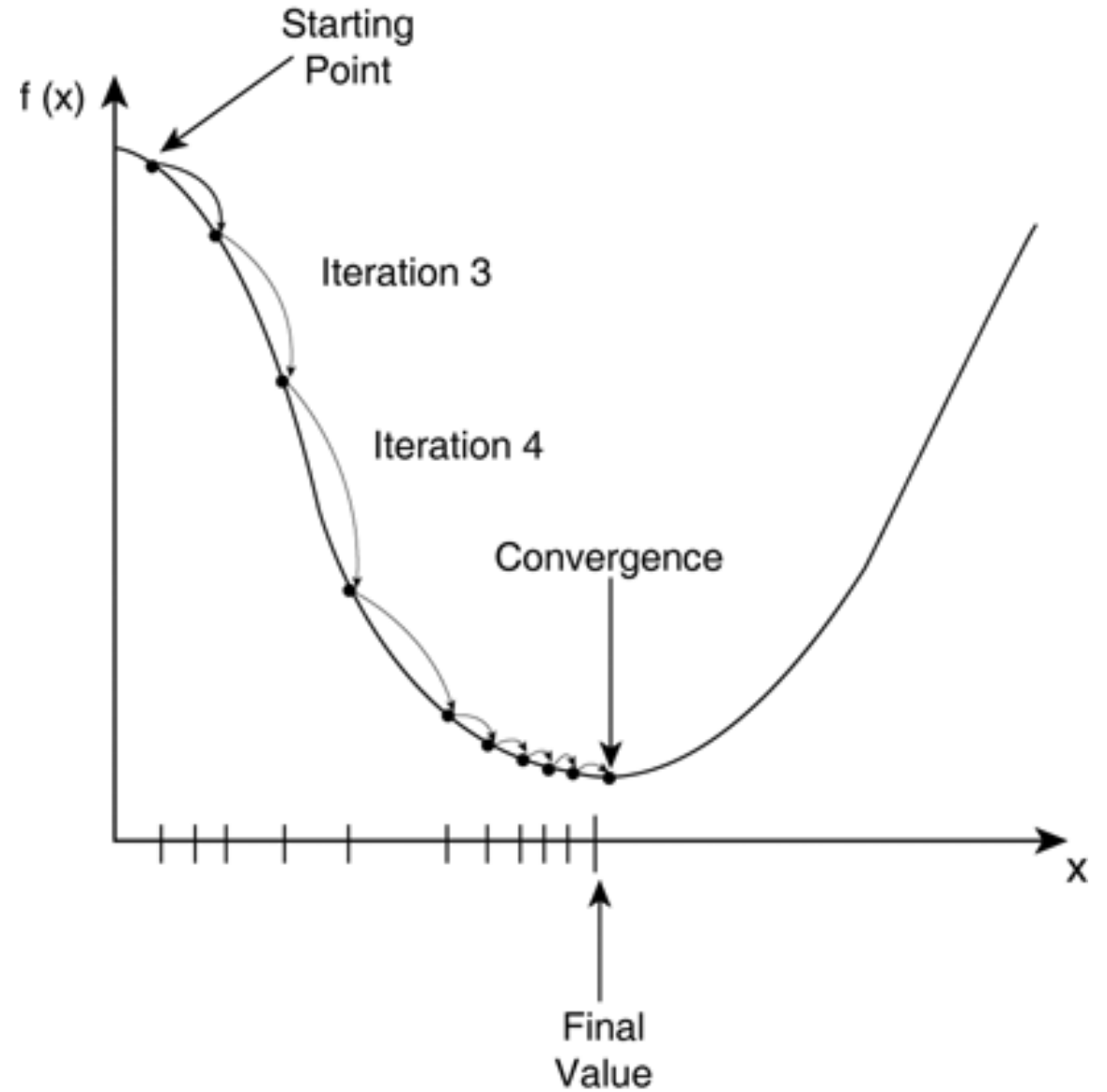
(overfitting -- too good to be true)

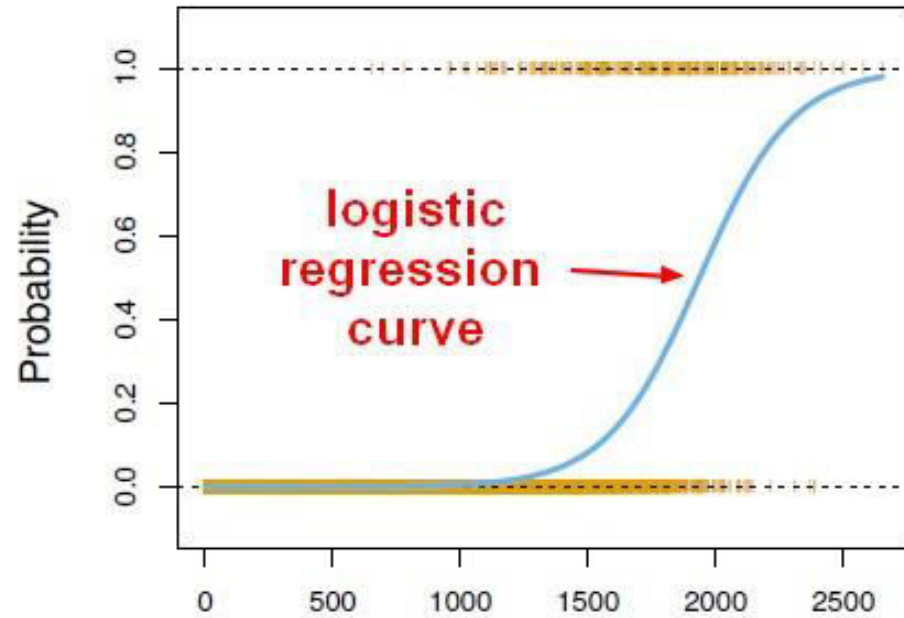
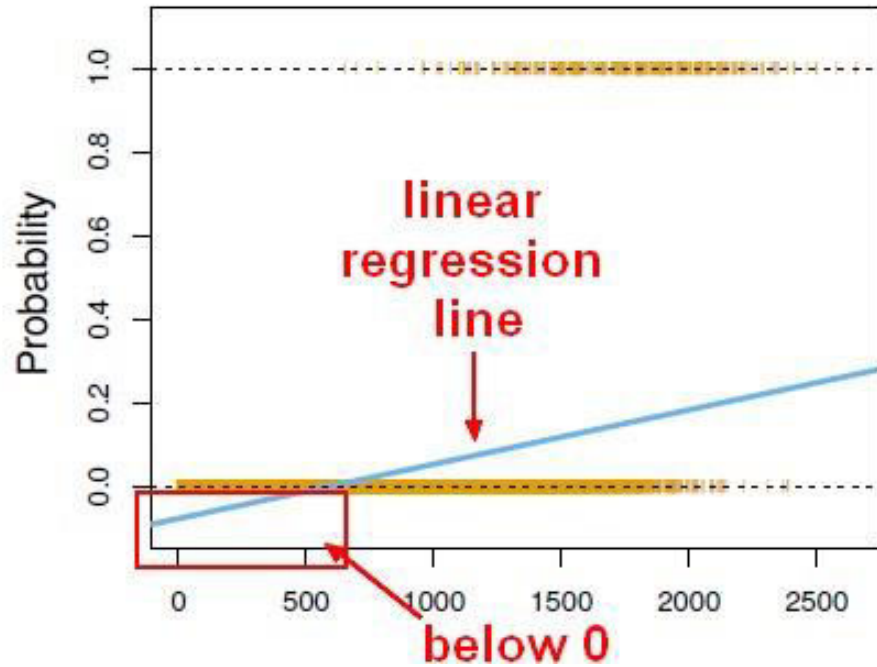


MACHINE LEARNING

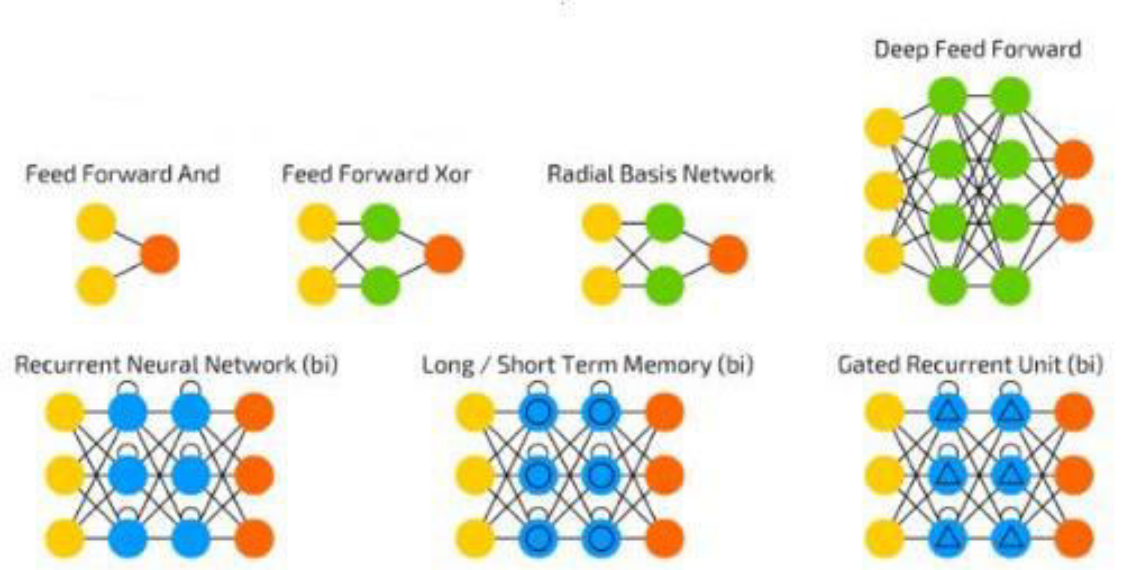
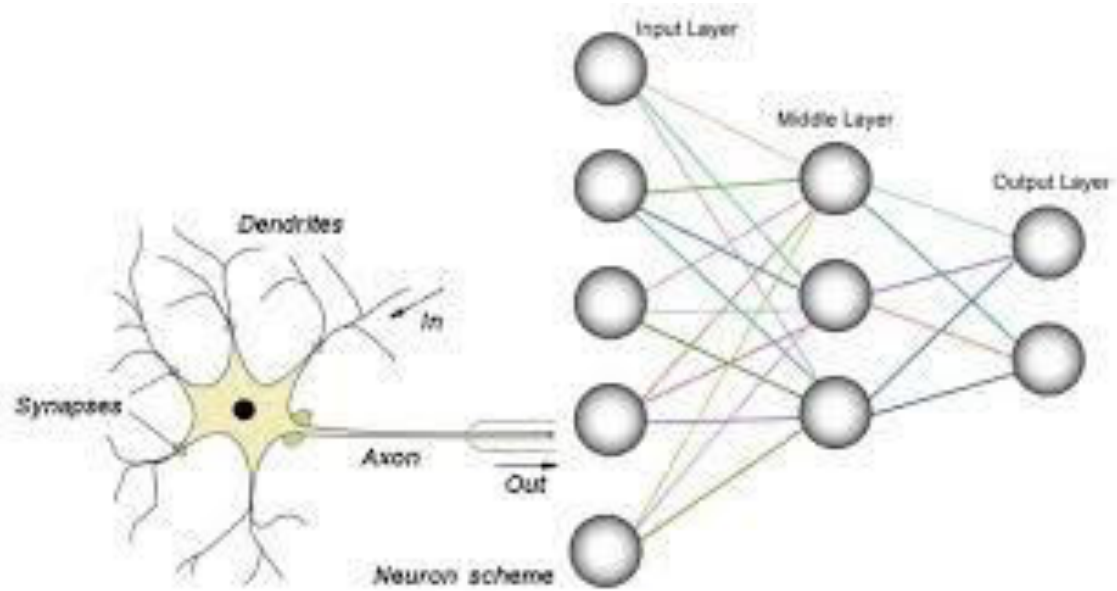
GRADIENT DESCENT

Gradient descent is an optimization algorithm used to minimize some function by iteratively moving in the direction of **steepest descent** as defined by the negative of the **gradient**

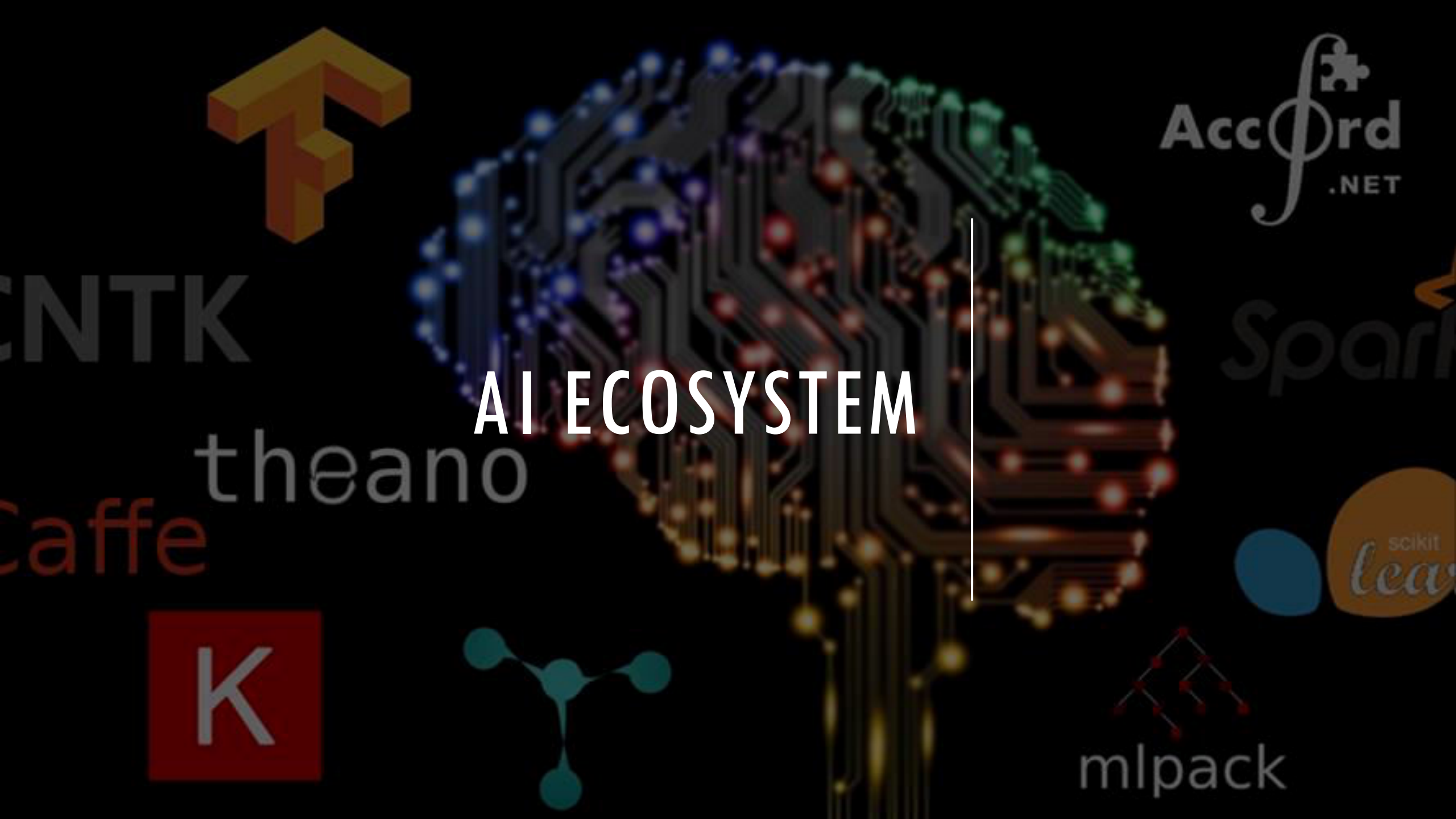




LINEAR / LOGISTIC REGRESSION



NEURAL NETWORKS



AI ECOSYSTEM



ENTK

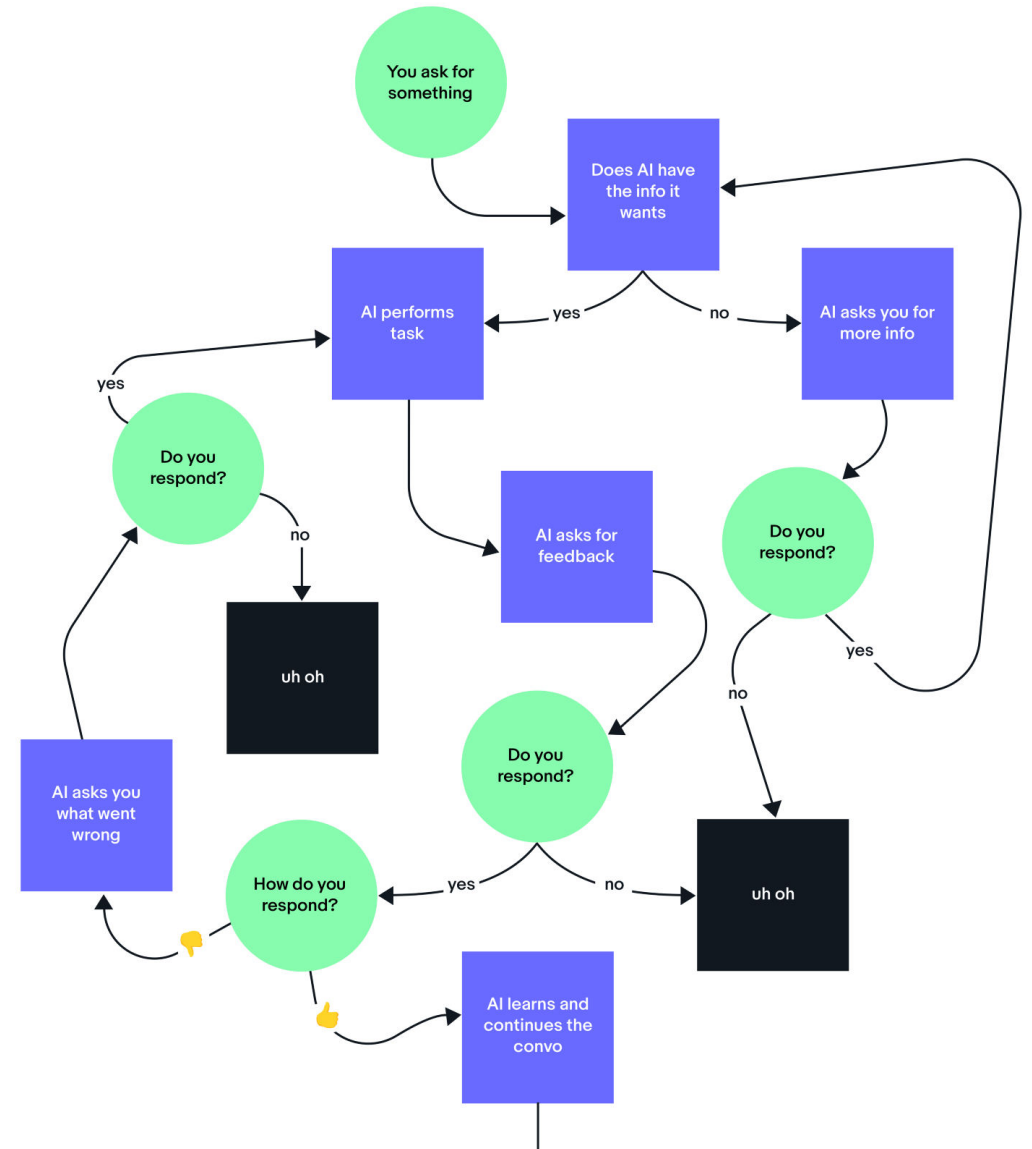
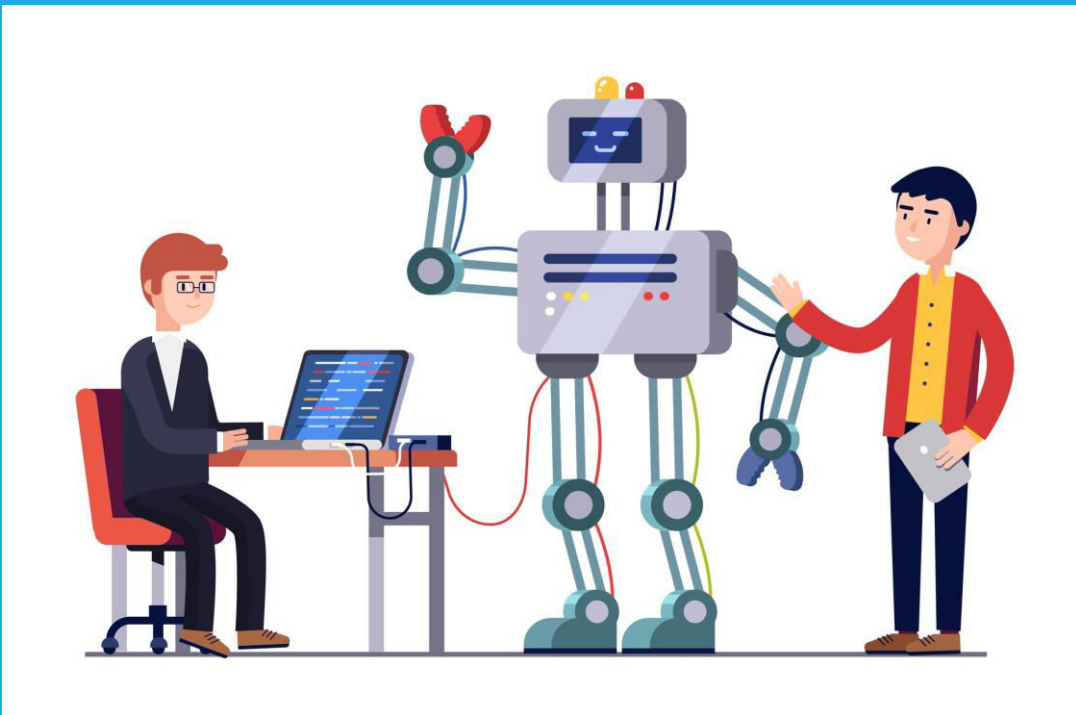


theano

Caffe



AI + UX



ACTIVITY