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Machine Learning and AI: Applications, Legal and Ethical Issues and Practical Guidance for Prosecution

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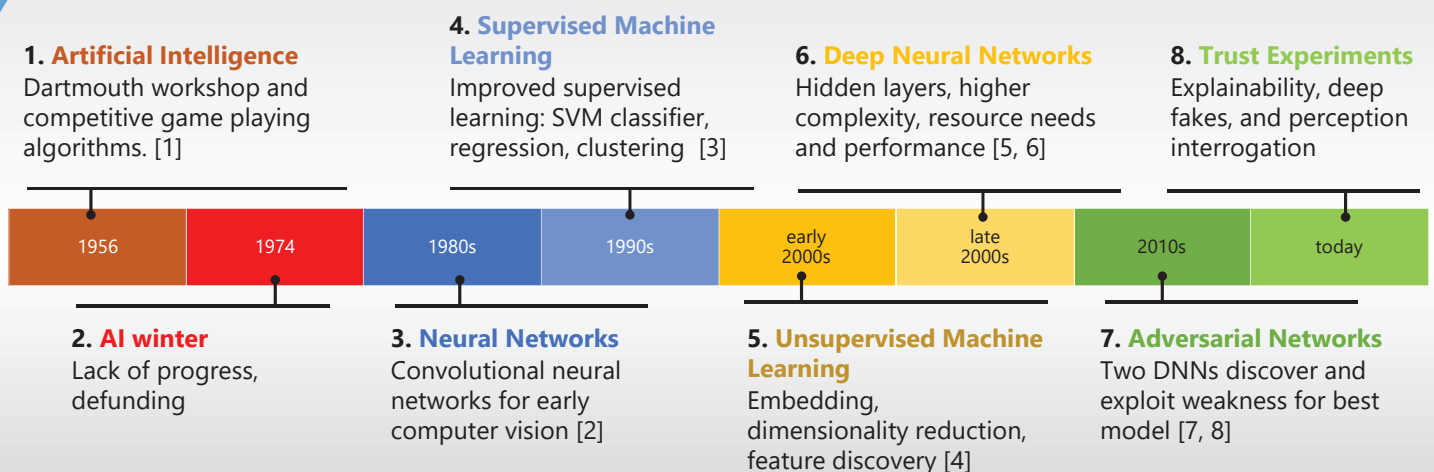
What is Artificial Intelligence?

A 5min primer.

Progression of AI Architecture

1. Artificial Intelligence
Dartmouth workshop and competitive game playing algorithms. [1]

4. Supervised Machine Learning
Improved supervised learning: SVM classifier, regression, clustering [3]

6. Deep Neural Networks
Hidden layers, higher complexity, resource needs and performance [5, 6]

8. Trust Experiments
Explainability, deep fakes, and perception interrogation

| 1956 | 1974 | 1980s | 1990s | early 2000s | late 2000s | 2010s | today |

2. AI winter
Lack of progress, defunding

3. Neural Networks
Convolutional neural networks for early computer vision [2]

5. Unsupervised Machine Learning
Embedding, dimensionality reduction, feature discovery [4]

7. Adversarial Networks
Two DNNs discover and exploit weakness for best model [7, 8]

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