# Artificial Intelligence & Machine Learning

# What is AI?

- Computer science defines AI research as the study of "intelligent agents": any device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals.[1]

- A more elaborate definition characterizes AI as "a system's ability to correctly interpret external data, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation."
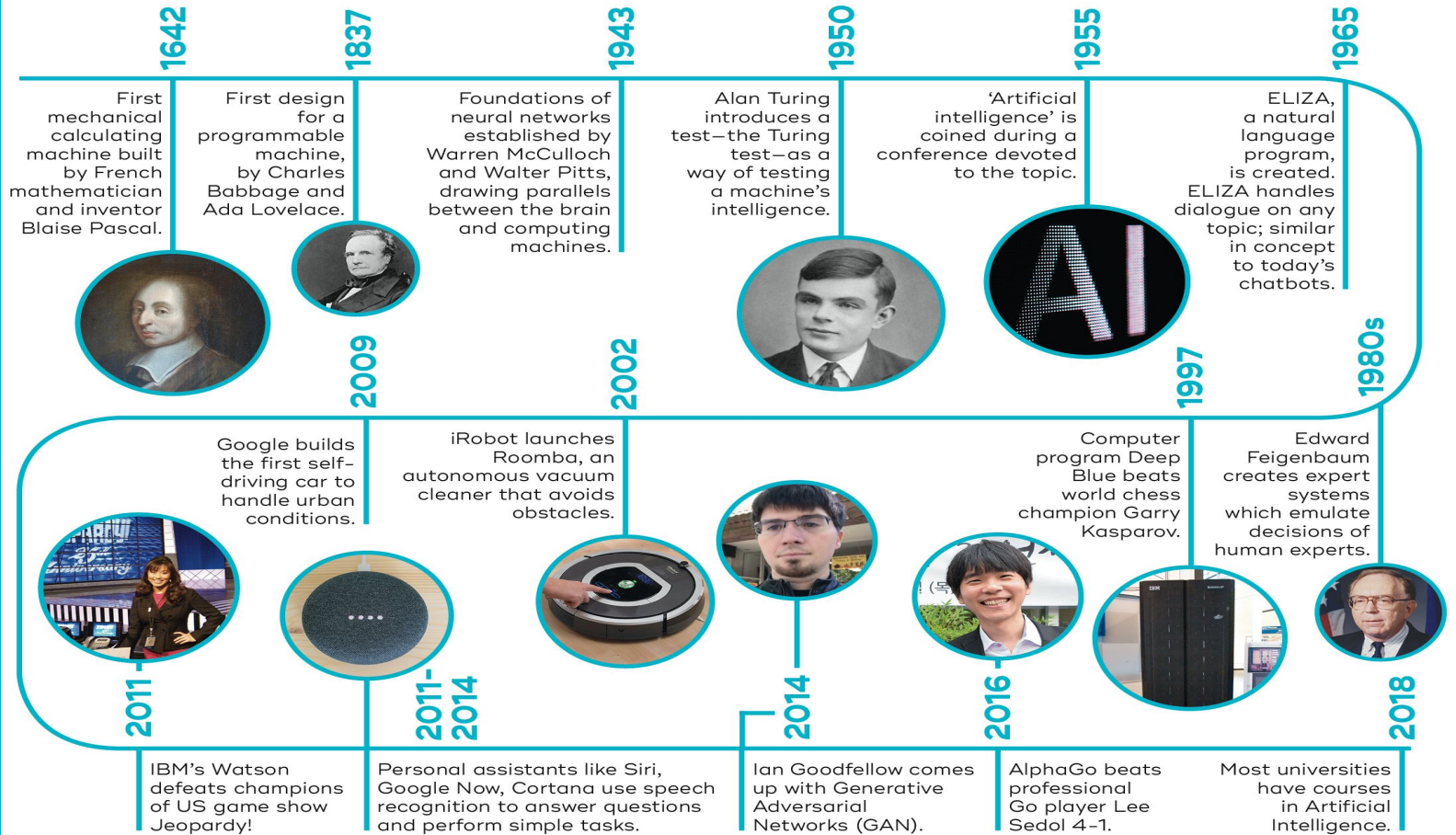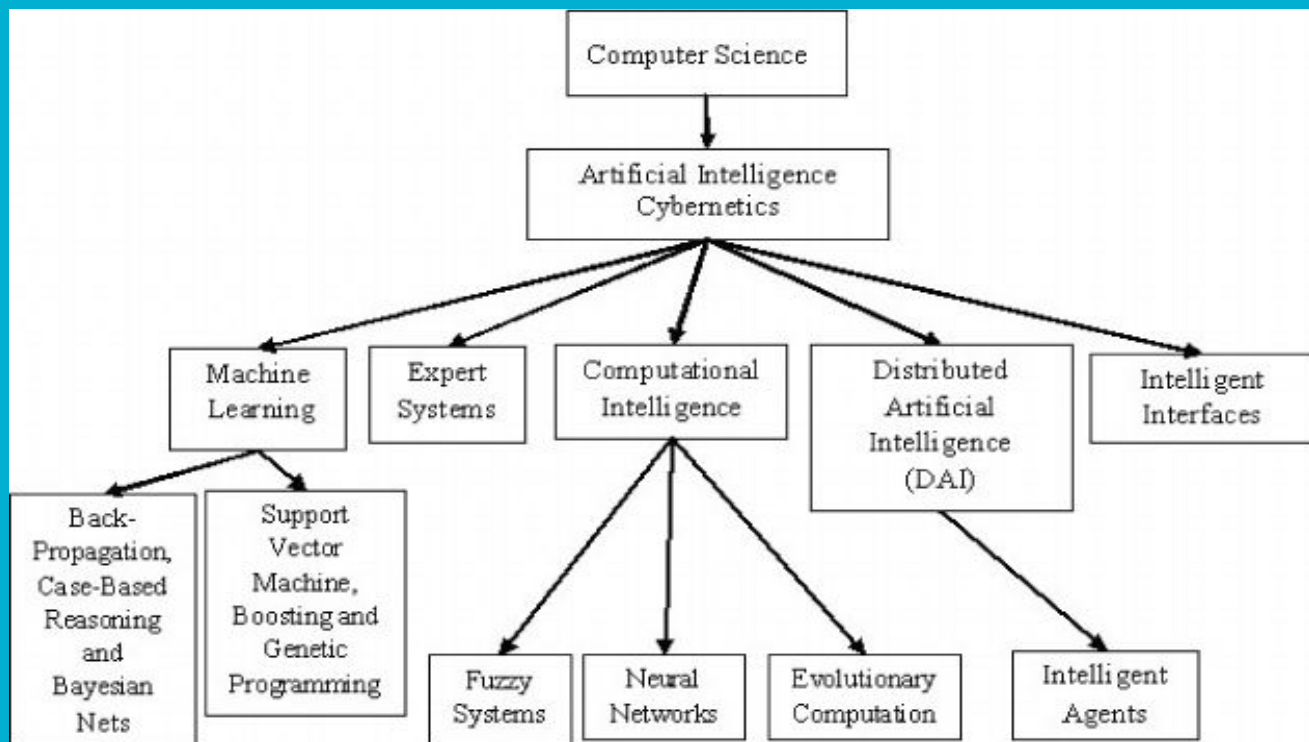
Source: Wikipedia

# What is AI?



AI Explained

- [source 1](source 1)
- [source 2](source 2)
- [FAQs about AI](FAQs about AI)

# History of AI

**1642** — First mechanical calculating machine built by French mathematician and inventor Blaise Pascal.

**1837** — First design for a programmable machine, by Charles Babbage and Ada Lovelace.

**1943** — Foundations of neural networks established by Warren McCulloch and Walter Pitts, drawing parallels between the brain and computing machines.

**1950** — Alan Turing introduces a test—the Turing test—as a way of testing a machine's intelligence.

**1955** — 'Artificial intelligence' is coined during a conference devoted to the topic.

**1965** — ELIZA, a natural language program, is created. ELIZA handles dialogue on any topic; similar in concept to today's chatbots.

**2009** — Google builds the first self-driving car to handle urban conditions.

**2002** — iRobot launches Roomba, an autonomous vacuum cleaner that avoids obstacles.

**1997** — Computer program Deep Blue beats world chess champion Garry Kasparov.

**1980s** — Edward Feigenbaum creates expert systems which emulate decisions of human experts.

**2011** — IBM's Watson defeats champions of US game show Jeopardy!

**2011–2014** — Personal assistants like Siri, Google Now, Cortana use speech recognition to answer questions and perform simple tasks.

**2014** — Ian Goodfellow comes up with Generative Adversarial Networks (GAN).

**2016** — AlphaGo beats professional Go player Lee Sedol 4–1.

**2018** — Most universities have courses in Artificial Intelligence.

Source : The University of Queensland, Australia

# AI ----⇻ Machine Learning

# Machine Learning



> 66 Machine learning is the study of computer algorithms that allow computer programs to automatically improve through experience.
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> ~ Tom Mitchell, Machine Learning, McGraw Hill, 1997
>
> **Carnegie Mellon University** Machine Learning

Video: What is Machine Learning?

Thank You