The timeline of the history and evolution of Artificial Intelligence, organized by key eras and milestones.

1. Foundation of AI (1900–1950)

This period focused on the conceptual idea of artificial humans and the possibility of creating an artificial brain.

- **1921:** Czech playwright Karel Capek introduced the term **"robots"** in his play "Rossum's Universal Robots".
- **1943:** Warren McCulloch and Walter Pitts created the **first conceptual model of a neural network**.

2. Emergence of AI (1950–1956)

This era served as a turning point where research began to produce measurable tests and programs.

- **1950:** Alan Turing proposed the **Turing Test** to measure machine intelligence in his paper "Computer Machinery and Intelligence".
- **1952:** Arthur Samuel developed a **checkers program** that improved its performance through experience.

3. AI Revolution: The Golden Age (1957–1973)

Characterized by high enthusiasm and significant technical advancements.

- **1957:** Frank Rosenblatt introduced the **Perceptron**, an early innovation for neural networks.
- **1958:** John McCarthy created **LISP**, the first programming language for AI research.
- **1959:** Arthur Samuel officially coined the term **"Machine Learning"**.
- **1966:** Joseph Weizenbaum created **ELIZA**, a chatbot using natural language processing.
- **1972:** The **Prolog** programming language was developed by Alain Colmerauer and Philippe Roussel.

4. The First AI Winter (1974–1980)

A period of stagnation marked by a **substantial decrease in research funding** and a loss of interest in the field.

5. AI Boom (1980–1987)

A return to rapid growth fueled by research breakthroughs and government support.

- **1980: XCON**, the first commercial expert system, entered the market.

- **1981:** Japan allocated $850 million to the **Fifth Generation Computer Project** for human-level reasoning and translation.

- **1986:** Ernst Dickmann demonstrated the **first self-driving cars**, reaching speeds of 55kmph.

6. AI Stagnation: The Second AI Winter (1987–1993)

Funding was halted again by governments and investors due to **high costs and a lack of efficient results**.

7. AI Agents (1993–2011)

Focus shifted toward developing intelligent programs that could match human intelligence in specific, specialized tasks.

- **1997:** IBM's **Deep Blue** defeated world chess champion Garry Kasparov.

- **2000:** Cynthia Breazeal developed **Kismet**, a robot capable of simulating human emotions.

- **2003:** NASA's autonomous rovers landed on **Mars**.

- **2006:** Major companies like Facebook, Twitter, and Netflix began using AI for **user engagement and advertising**.

- **2011:** Apple released **Siri**, the first widely popular voice assistant.

8. Artificial General Intelligence & Modern AI (2011–Present)

Current advancements are driven by extensive data application and a focus on Artificial General Intelligence (AGI).

- **2012:** Google researchers trained a neural network to **recognize cats** using unlabeled images.

- **2016:** Hanson Robotics introduced the humanoid robot **Sophia**.

- **2017:** Facebook AI chatbots created their **own language** to communicate while learning to negotiate.

- **2018:** Alibaba's language AI outperformed humans on a **Stanford reading comprehension test**.

- **2019:** Google's **AlphaStar** reached Grandmaster status in StarCraft 2.

- **2020:** OpenAI began testing **GPT-3,** which uses deep learning for creative tasks and coding.

- **2021–2022:** OpenAI developed **DALL-E** for image generation and later integrated it with **ChatGPT**.

- **2023:** The rise of **Multimodal models** that process text, image, video, and audio simultaneously.

- **2024:** Introduction of **Devin** (the first AI software engineer) and **SORA** (a text-to-video model).