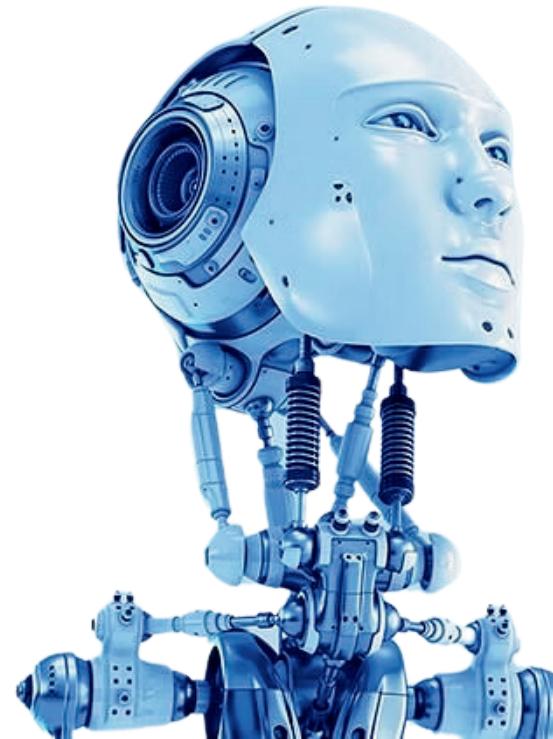


artificial intelligence

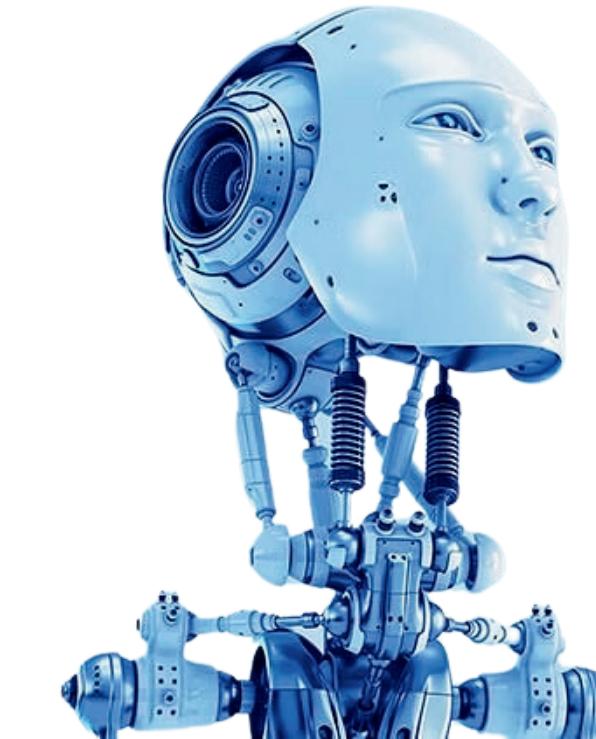
- **Topics Outline**

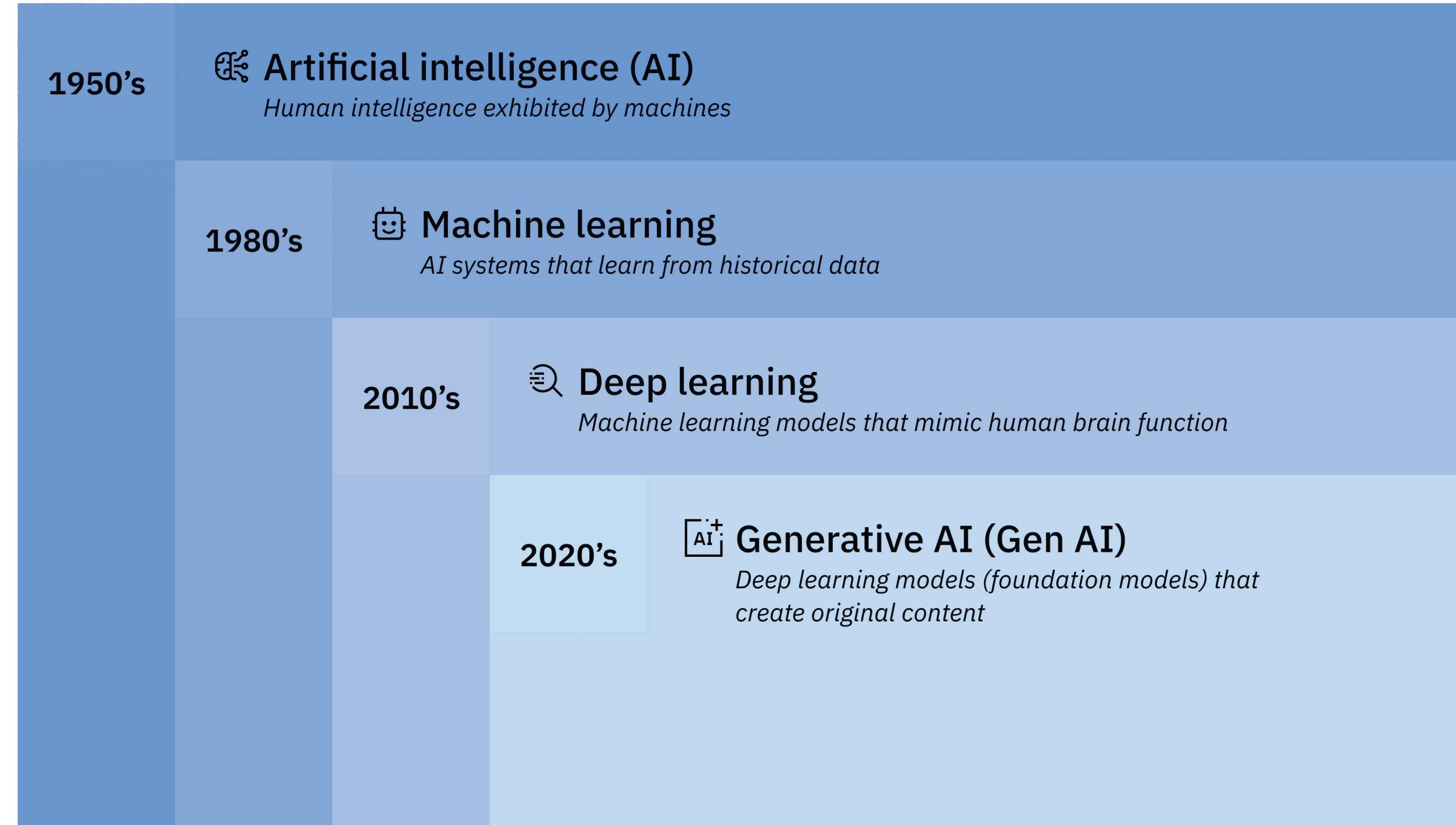
- **What is Artificial intelligence**
- **Machine learning**
- **Computer vision**
- **Natural Language Processing**
- **Document Intelligence**
- **Knowledge mining**
- **Generative AI**
- **The Relationship Between Data Analysis and Artificial Intelligence**
- **How to start artificial intelligence**

- **Artificial intelligence (AI) is technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision making, creativity and autonomy.**



- **Machine Learning** - This is often the basis of an AI system, and is the way we "teach" a computer model to make predictions and draw conclusions from data.
- **Computer vision** - the capabilities within artificial intelligence to interpret the world visually through cameras, video, and images.
- **Natural Language Processing** - The capabilities within a computer's artificial intelligence to interpret written or spoken language, and respond in kind.
- **Document Intelligence** - Capabilities within AI that deal with managing, processing, and using large amounts of data contained in forms and documents.
- **Knowledge mining** - Capabilities within AI to extract information from large amounts of often unstructured data to create a searchable store of knowledge.
- **Generative AI** - Capabilities within AI that create original content in a variety of formats including natural language, image, code, and more.

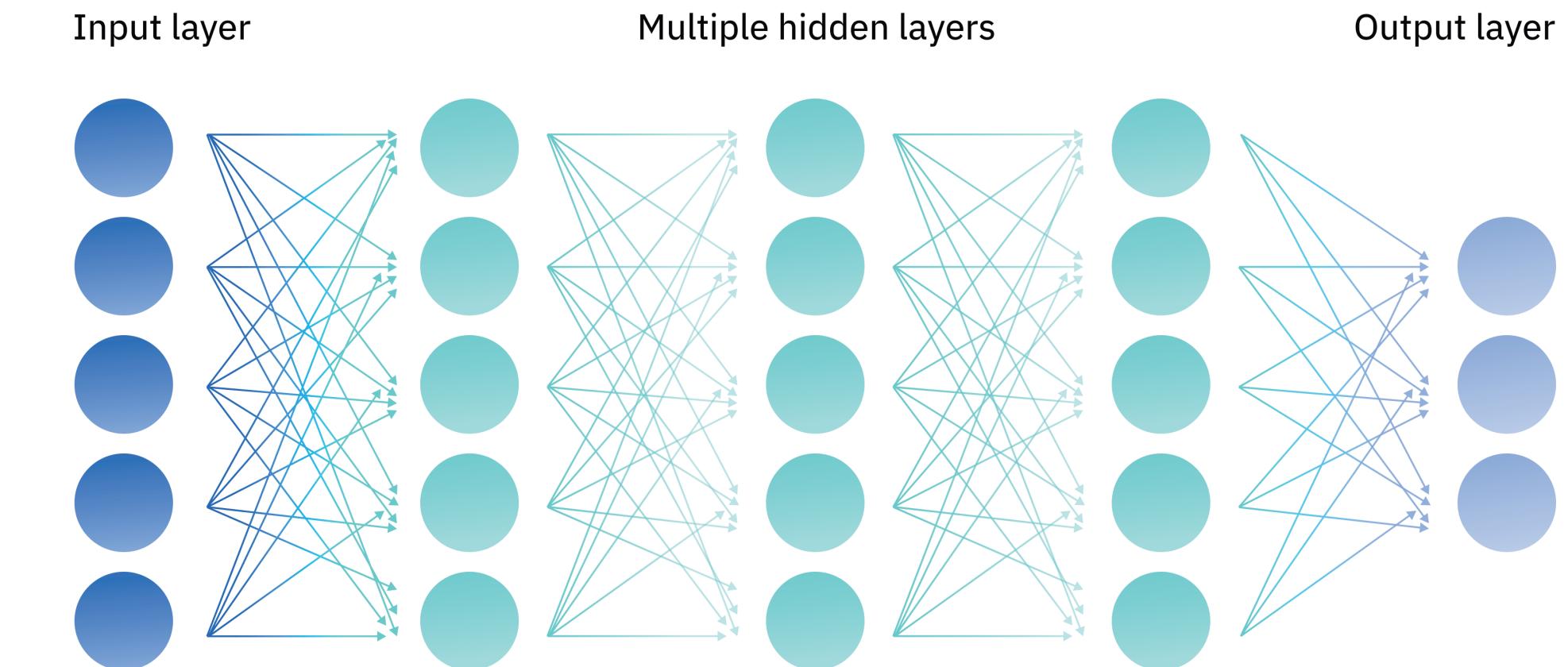




- **Machine learning** Directly underneath AI, we have machine learning, which involves creating models by training an algorithm to make predictions or decisions based on data. It encompasses a broad range of techniques that enable computers to learn from and make inferences based on data without being explicitly programmed for specific tasks.
- There are many types of machine learning techniques or algorithms, including linear regression, logistic regression, decision trees, random forest, support vector machines (SVMs), k-nearest neighbor (KNN), clustering and more. Each of these approaches is suited to different kinds of problems and data.

- **Deep learning** is a subset of machine learning that uses multilayered neural networks, called deep neural networks, that more closely simulate the complex decision-making power of the human brain.

Deep Neural Network

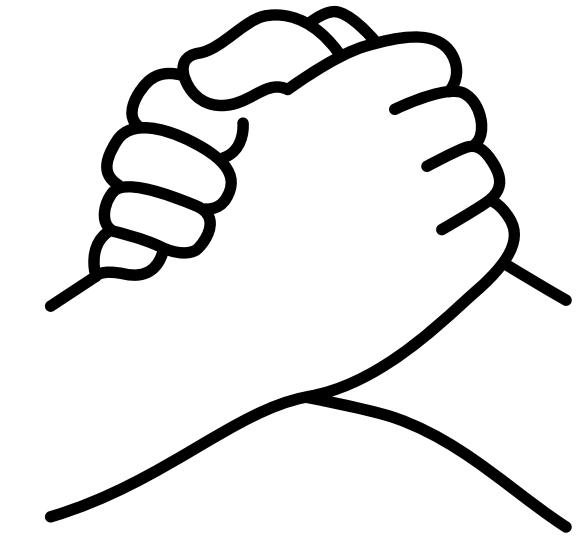


- **Generative AI**, sometimes called "gen AI", refers to deep learning models that can create complex original content—such as long-form text, high-quality images, realistic video or audio and more—in response to a user's prompt or request



- **The Relationship Between Data Analysis and Artificial Intelligence**

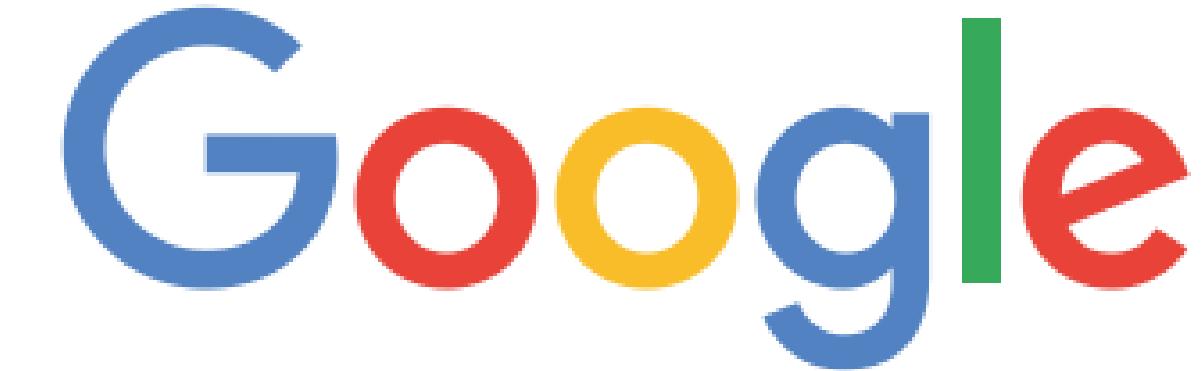
1. Data analysis and artificial intelligence (AI) are closely linked.
2. AI relies on data to train models. Data analysis helps clean and interpret this data.
3. Insights from data analysis enhance AI predictions and recommendations.
4. A key part of AI, machine learning uses data analysis to identify patterns and validate models.



- **How to start artificial intelligence**
- **The first step is to study the basics of artificial intelligence**
- **Microsoft Certified: Azure AI Fundamentals**

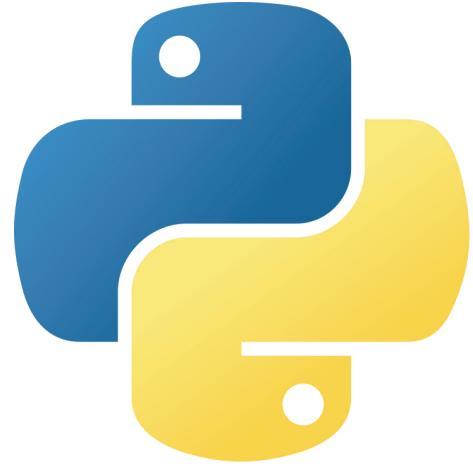


- **How to start artificial intelligence**
- **The second step, which I prefer, is learning data analysis from Google**
- **Google Data Analytics Professional Certification**
- **Due to the link between artificial intelligence and data analysis**



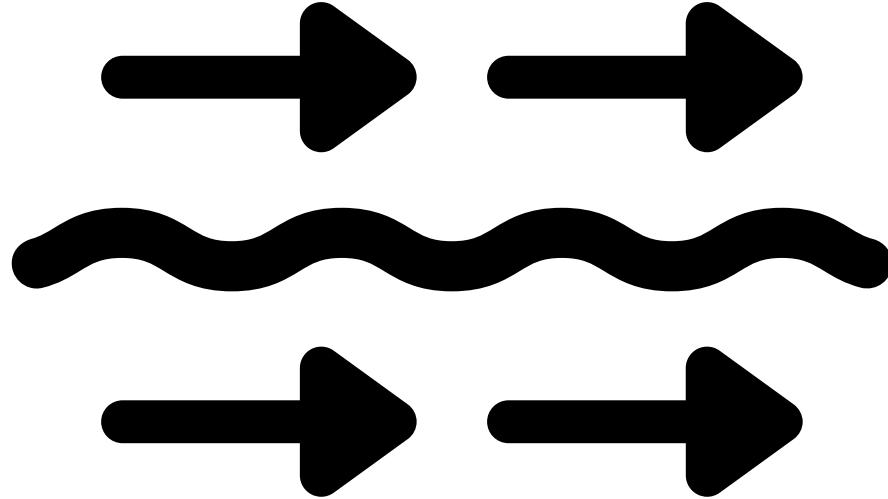
CLICK HERE 

- **How to start artificial intelligence**
- **Why Python is the Ideal Language for AI and Data Analysis?**
 1. **This simplicity allows developers to focus more on solving complex AI and ML problems rather than worrying about the intricacies of the language**
 2. **Rich Libraries:** Python offers a vast collection of libraries and frameworks, such as:
 3. **NumPy:** For numerical computations.
 4. **Pandas:** For data manipulation and analysis.
 5. **Matplotlib and Seaborn:** For data visualization.
 6. **Scikit-learn:** For machine learning.
 7. **TensorFlow and PyTorch:** For deep learning



[CLICK HERE](#) A black outline of a computer mouse cursor pointing towards a rectangular button.

- Currently, the basic level has been completed and we will move on to the advanced stage



- **Level Intermediate artificial intelligence**
- **Here if you want Designing and Implementing a Microsoft Azure AI Solution**



[CLICK HERE](#) 

- **Level Intermediate artificial intelligence**
- **Develop generative AI solutions with Azure OpenAI Service**



CLICK HERE 

- If you need help contact me
- Thank You

