

Lesson 1.1: History of AI Language Models

Objective:

By the end of this lesson, students will have a clear understanding of the history of AI language models, their evolution, and the importance of language models in artificial intelligence.

Duration:

60 minutes

Materials:

- Presentation slides
- Video clips highlighting AI language model milestones
- Whiteboard or digital board for illustrations and diagrams
- Handout with key points and additional resources

Lesson Outline:

1. Introduction (5 minutes)

- Instructor introduction and overview of lesson objectives
- Brief discussion of the importance of understanding AI language model history

2. Early Beginnings (10 minutes)

- Presentation on the origins of natural language processing (NLP)
- Discussion of early rule-based systems and symbolic AI
- Introduction of statistical methods and machine learning in NLP

3. The Emergence of Neural Networks (15 minutes)

- Presentation on the development of artificial neural networks (ANNs)
- Explanation of feedforward and recurrent neural networks (RNNs) in NLP
- Brief overview of Long Short-Term Memory (LSTM) and its impact on NLP

4. The Rise of Transformers (15 minutes)

- Introduction to the Transformer architecture and its significance
- Discussion of the attention mechanism and its role in language models
- Overview of BERT, GPT, and other transformer-based language models

5. Evolution of GPT Models (10 minutes)

- Brief introduction to OpenAI and its mission
- Discussion of the GPT series and the advancements in each iteration
- Setting the stage for ChatGPT and GPT-4, the focus of the course

6. Conclusion and Q&A (5 minutes)

- Recap of key points from the lesson
- Open the floor for questions and discussions
- Distribute handout with key points and additional resources for further reading

Assessment:

- Students will participate in discussions throughout the lesson.
- Students will complete a short quiz at the end of the lesson to assess their understanding of the key concepts.

Homework:

- Read the assigned articles on AI language models history for a deeper understanding.
- Prepare for the next lesson by reviewing the introduction to GPT models, with a focus on GPT-3 and GPT-4.