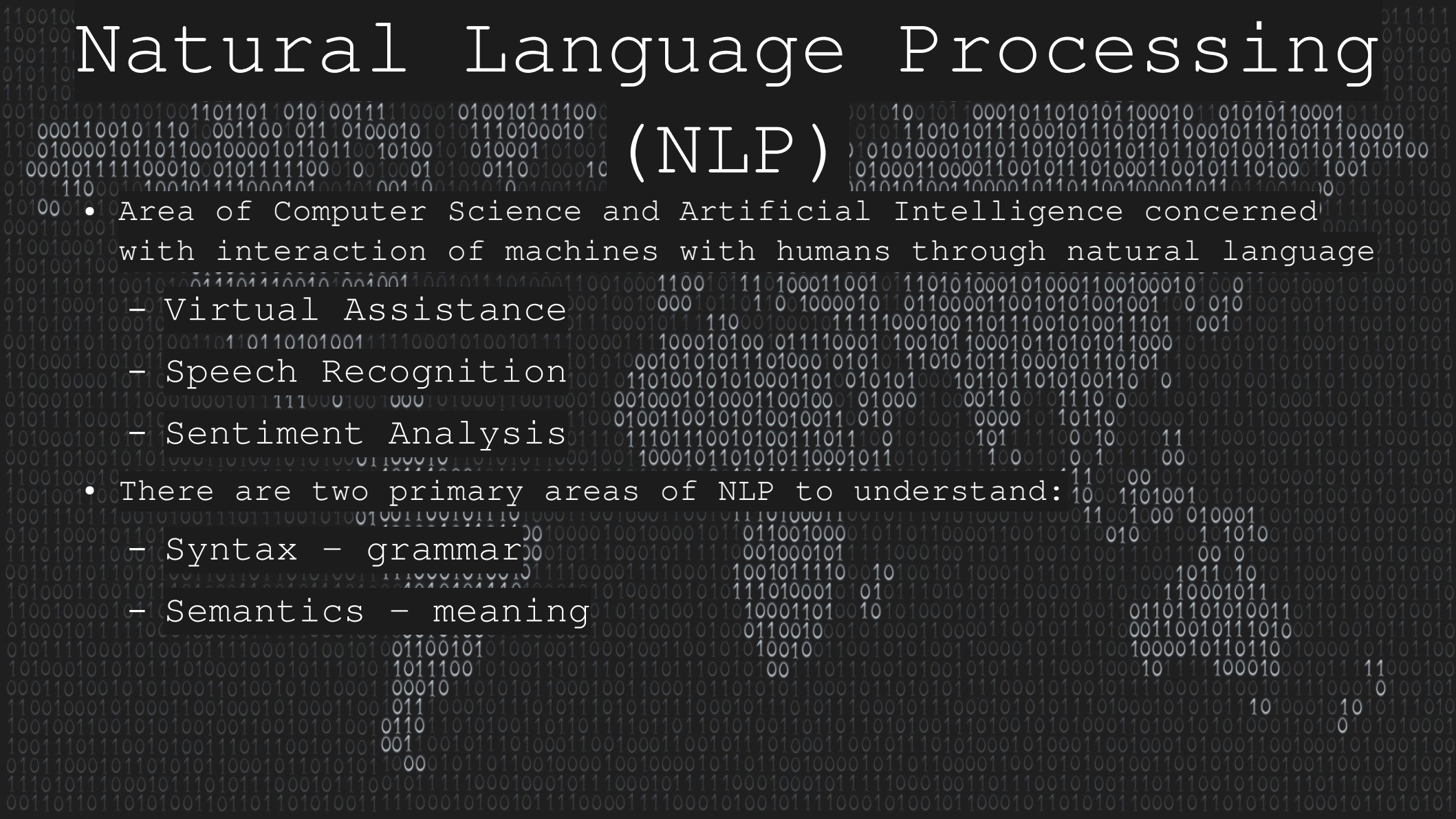# NLP Basics With TensorFlow

What will we be covering?

- Foundations of Deep Learning and NLP

- Tensorflow

- Fundamentals of NLP – Syntactic and Semantic Analysis

- Word Embeddings- Application and Hands-on

- Projects based on Neural Networks – RNN, CNN

Natural Language Processing (NLP)

- Area of Computer Science and Artificial Intelligence concerned with interaction of machines with humans through natural language

  - Virtual Assistance

  - Speech Recognition

  - Sentiment Analysis

- There are two primary areas of NLP to understand:

  - Syntax – grammar

  - Semantics – meaning

Techniques in NLP

- Parsing
  - Resolves a sentence into component parts using a parse tree and also describe the syntactic rules
- Stemming
  - Process of reducing words to their stem
- Text Segmentation
  - Transforming text into meaningful units - words, sentences, intent etc
- Deep Learning for NLP
  - Produces the best results of all techniques

Preprocessing Textual Data

- Character Encoding

- Word Encoding