CS 5/7320 Artificial Intelligence

More Important Al Topics

Slides by Michael Hahsler



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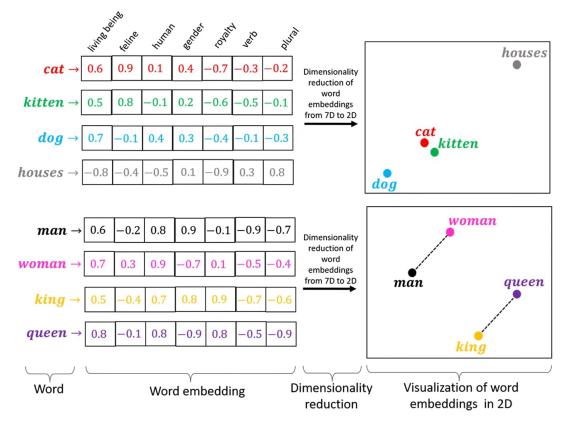
Natural Language Processing (NLP)

Tasks:

- Speech recognition
- Text classification
- Natural-language understanding
- Natural-language generation.

Techniques:

- Text embeddings
- Transformers
- Large language models (LLMs)



Layer Norm

Feed Forward

Layer Norm

Masked Multi
Self Attention

Text & Position Embed

Decoder-only transformer

used by LLMs

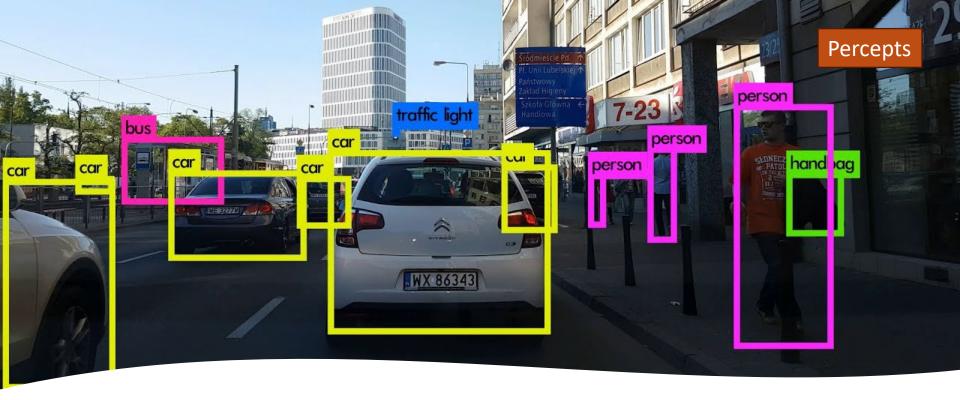
Task

Classifier

Text

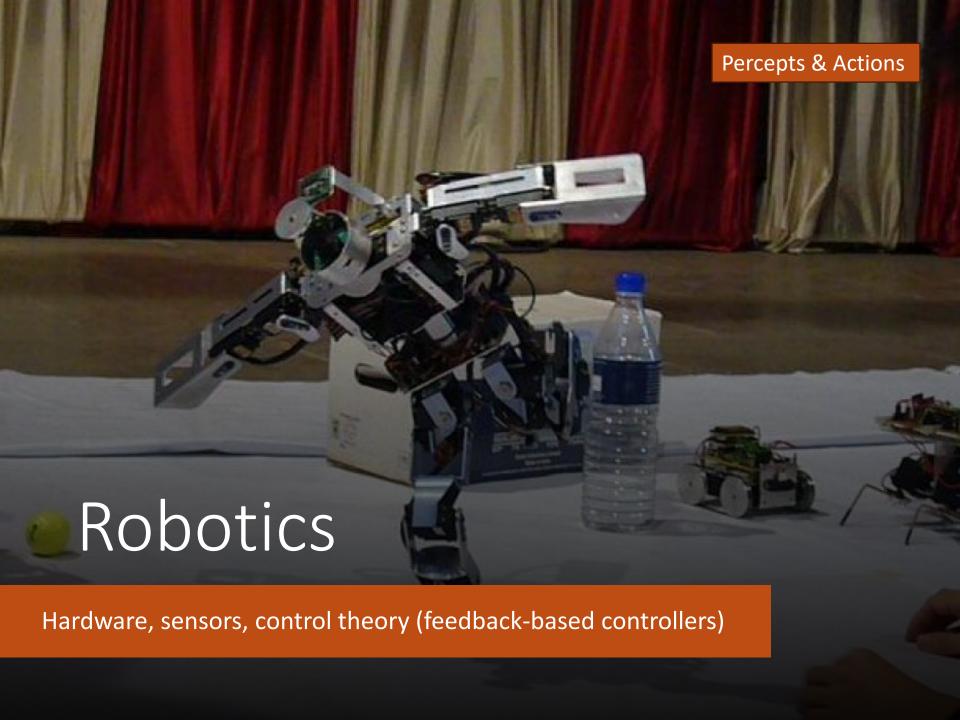
Prediction

Source: Word Embeddings for PyTorch Text Classification Networks



Computer Vision

- Object detection
- Event detection
- Activity recognition
- Video tracking
- Object recognition
- 3D pose estimation
- Uses Deep Convolutional Neural Networks





Communication and Coordination

