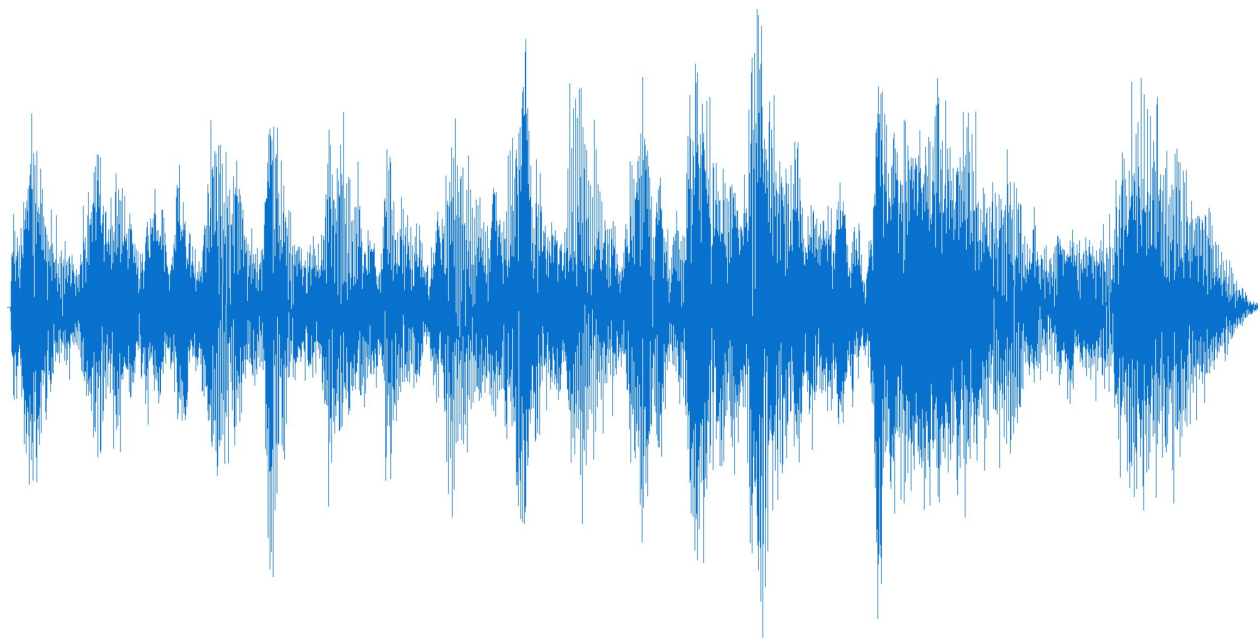# Deep Learning (for audio) with Python

Learning goals

- Capabilities and limits of deep learning (DL)

- Fundamental theory behind neural networks

- Industry-standard DL libraries

- Implement different types of neural networks

Course focus

Technologies

Technologies

- Python and TensorFlow are industry standards

- TensorFlow uses Keras as a simple interface

- TensorFlow is open source

Content

- AI / ML / DL

- Multilayer perceptron

- Convolutional neural networks (CNNs)

- Recurrent neural networks (RNNs)

- Generative adversarial networks (GANs)

What should you expect?

- Theory

- Coding tutorials

- Applications

Where do I get code/slides?

Who's this course for?

- Python devs who want to pick up DL

- Devs who play around with DL libraries

- Devs with an interest in audio/music

- Practitioners with experience in audio digital signal processing (DSP)

- Data analysts who want to step up their game

Prerequisites

- Intermediate Python coding skills

- I won't teach you how to code!

- Basic linear algebra - great, but not necessary

- Basic audio DSP - great, but not necessary