#### DEEP LEARNING WITH KERAS

Themistoklis Diamantopoulos

#### What have we learned?

- What is Deep Learning?
- How can I train a Neural Network?
- Which topology is best for what problem?
- Problems outlined:
  - Image classification
  - Text classification
  - Text generation
  - Image style transfer
  - Game learning

# Any more applications?

- Caption Generation
- Visual Question Answering



A person skiing down a snow covered slope

See demo at https://cs.stanford.edu/people/karpathy/deepimagesent/generationdemo/



What is he doing?

playing tennis	98.987%
tennis	0.629%
skateboarding	0.191%
serving	0.091%
jumping	0.032%

See demo at https://vqa.cloudcv.org/

## Even more applications?

- Restore colors in B&W photos and videos
- Automatic translation
- Self-driving cars
- Predict earthquakes?
- Create deep learning programs!?

• . . .

#### Check:

- http://www.yaronhadad.com/deep-learning-most-amazing-applications/
- https://medium.com/@vratulmittal/top-15-deep-learning-applications-that-will-rule-the-world-in-2018-and-beyond-7c6130c43b01

## So, what next?

Now you know!

Use your power for good!