Applied Machine Learning Python + basic algebra

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Introductory quiz

- who has run tensorflow? Please raise your hand!
- who has run keras?
- who has run scikit-learn?
- who has run NumPy?
- who has programmed in Python?
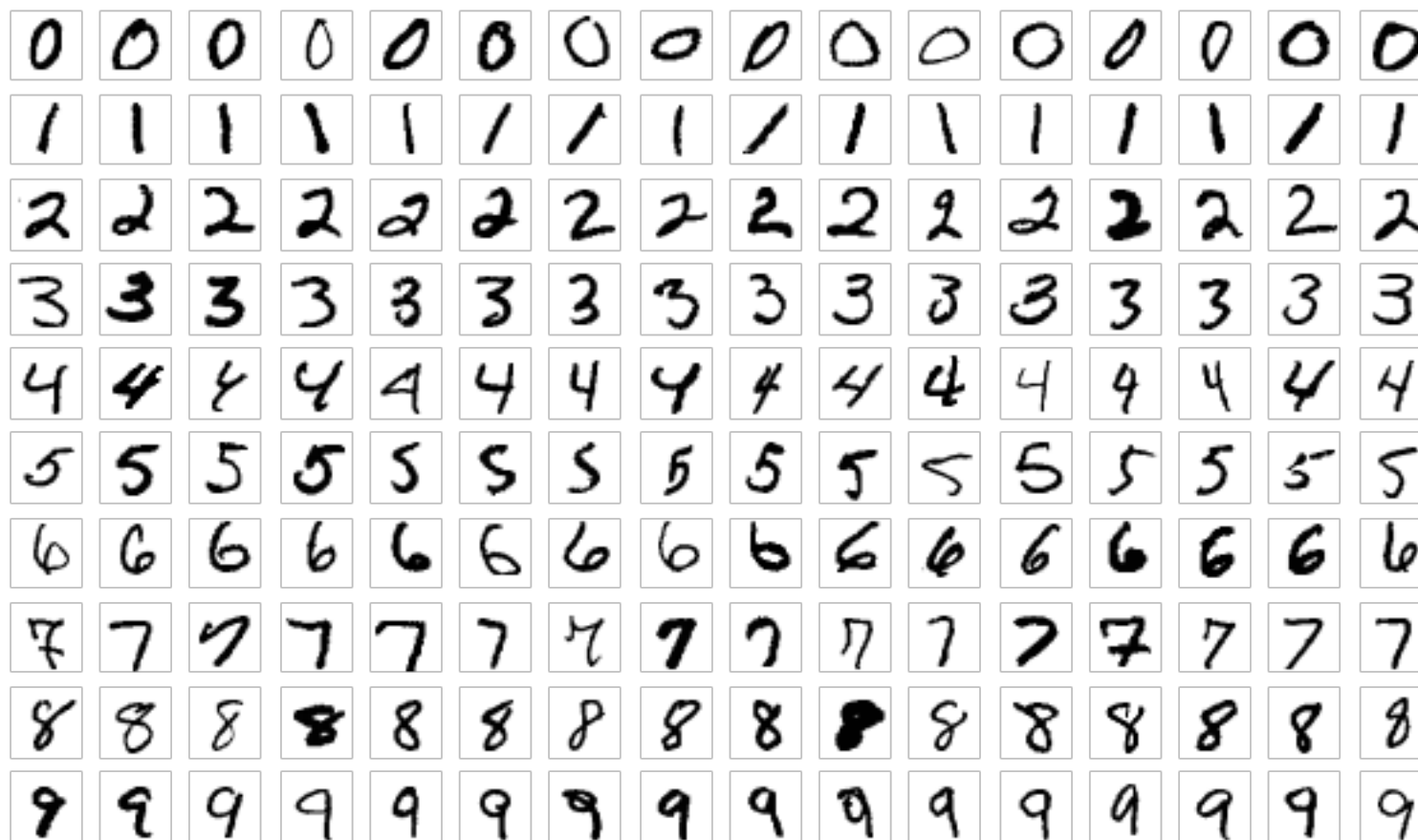- who has programmed in something else than Java?

Plan for today

- a very short tutorial of Python
- a very short reminder of some simple linear algebra
- a very short intro to NumPy

- source: Richard Johansson "Scientific Computing with Python"
- available at: https://github.com/jrjohansson/scientific-python-lectures

Plan for the first lab

- check your presence, registration depends on that

- a very short tutorial of Python
- a very short intro to NumPy
- a very short intro to Scikit-Learn
- a very short intro to Keras

- TAs available

- source 1: https://github.com/ageron/handson-ml
- source 2: https://github.com/fchollet/deep-learning-with-python-notebooks

Plan for the first lab

Some Basic Mathematics

- tensors (scalars, vectors, matrices, 3D tensors, 4D tensors, …)
- tensor operations (scalar operations, transformations, product)
- gradient
- chaining rule for derivation