Intro 2 weeks

- Intro to ML in general
- Intro to Linux
- Intro to Git and GitHub
- Intro to Python (including OOP)
- Intro to NumPy, Pandas, Matplotlib, Seaborn

ML weeks

Supervised Learning

w1.

- Linear Regression
- Polynomial Regression
- Practice

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w2.

- Logistic Regression, Cross-Validation
- SVM, Hyperparameters Optimization
- Practice

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w3.

- Correlation Coefficients
- Statistical Tests
- Practice

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w4.

- Decision Trees
- Random Forest
- Practice

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w5.

- Boosting, Bagging, Stacking
- Losses, Metrics
- Practice

Unsupervised Learning

w6.

- K-NN (supervised), K-Means
- GMM
- Practice

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w7.

- PCA
- LDA, ICA etc
- Practice

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w8 (optional)

- Non Linear dimensionality reduction
- More topics for Unsupervised / Time Series

Deep Learning

w9.

- NN basics
- Back Propagation
- Practice

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w10.

- Improving the way neural networks learn
- Main O
- Practice

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w11.

- Intro to tensorflow
- Intro to Keras, Intro to PyTorch
- Practice

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w12.

- Intro to CNN's
- CNN
- Practice + Data Aug, Generators

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w13.

- Object detection + Segmentation
- GAN's, VAE
- Practice

NLP

w14.

- Text Preprocessing, Language Models
- Word2Vec
- Practice

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w15.

- Transformers
- RNN
- Practice

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w16. (optional)

- Intro to Reinforcement Learning
- Variational Inference, Bayesian NNs

Project
w17-w20