

Data Science

Lecture Plan

KEA – Data Science Elective PBA – Fall 2019 – Henrik Strøm

September 19, 2019



New Subjects:

- Introduction
- Anaconda up and running
- What is Data Science?
- Python Primer

New Subjects:

- Finding and Using References
- Managing References
- \LaTeX
- Writing a Good Paper
- Framing the Problem
- Finding and Preparing Data

Week 37 - Presenting Data

New Subjects:

- Data Visualization

Homework:

- Half-page paper: defining Data Science.
- L^AT_EX assignment (week 35).

New Subjects:

- Descriptive Statistics
- Inferential Statistics

Homework:

- Half-page paper: what should go in the Methods section?
- Assignment in the Week 37 notebook.

Week 39 - What Can We Do With Machine Learning?

New Subjects:

- What Can We Do With Machine Learning?
- Dimensionality Reduction
- Cluster Analysis

Homework:

- Week 38 statistics and visualization assignment

Week 40 - Mandatory Assignment 1

New Subjects:

- Working on Mandatory Assignment 1

Week 41 - TBD

New Subjects:

- TBD

New Subjects:

- Classification Models
- Model Performance and Optimization

New Subjects:

- TBD

Week 44 - Regression Models

New Subjects:

- Regression Models
- Model Performance and Optimization

Week 45 - Mandatory Assignment 2

New Subjects:

- Working on Mandatory Assignment 2

Week 46 - Analyzing Text

New Subjects:

- Unstructured Data
- Analyzing Text

Week 47 - Real-World Data Science Project

New Subjects:

- Presenting a Real-World Project

New Subjects:

- TBD

Week 49 - Exam Project

New Subjects:

- Exam Prep
- Working on Exam Project

Week 50 - Exam Project

New Subjects:

- Exam Prep
- Working on Exam Project