

Intro Masterseminar Data Science (CS)

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Outline

- The idea
- Requirements
- Expectations
- Timeline
- How to find a topic

- These slides are also here:
http://vda.univie.ac.at/Teaching/P1_P2_Masterseminar/

The Idea

There different stages in your Master / for your scientific contributions:

- 1st semester: 6 ECTS Doing Data Science
- 3rd semester: 4 ECTS Research seminar
- 3rd semester: 12 ECTS Data Science Project
- 4th semester: 26 ECTS Master thesis + 2 ECTS Masterseminar

We offer help

- Doing Data Science: getting to appreciate the breadth and diversity of applications
- Research Project: help in finding a topic
- Research Seminar: solidifying the scientific approach
- Masterseminar: solidifying + communicating the topic

The idea

- Several opportunities throughout the master's program to get to know different research directions.
- Try one out in the Projects course
- Solidify in your master's seminar

However

- if previous projects didn't work, there is a chance to switch topics for the thesis still

The idea — Masterseminar

- Here you are writing an expose / survey paper on the topic you have chosen. This will become your first draft / literature review chapter for your thesis.
- You will give 1 presentation—Before writing: a so-called “pre-paper talk”
- Then you will write another chapter of your thesis

Formal Requirements

- You need to have successfully completed the following courses:
 - Doing Data Science
 - Ethical and Legal Issues
 - Project
 - Research Seminar
 - CORE:
 - Intro to ML
 - Statistics for DS
 - Mathematics for DS
 - Optimisation Methods for DS
 - Mining Massive Data
 - Visual and Exploratory Data Analysis

Expectations

- Master Seminar: you are supposed to present your thesis topic to your peers to get early feedback and to become aware of related work / what others are doing
- Thesis: you are supposed to tackle the state-of-the-art in a well defined research topic

Expectations

- It's work, i.e. studying is a full-time job!
 - 4 ECTS (Research Seminar) =
100h of your time or 7h/week
 - 12 ECTS (Project) =
300h of your time or 20h/week
 - 2 ECTS (Masterseminar) =
50h of your time or 3.5h/week
 - 26 ECTS (Thesis) =
650h of your time in a semester

Expectations

- Project: find topic
 - best before the start of the semester (but not necessary)
 - latest by deadline for dropping the course
- Masterseminar: you should already have a topic and supervisor for your master thesis!
- meet at least 4 times during the semester with your supervisor (ideally every week!)
 1. in the beginning to clarify the topic
 2. after 4 weeks to clarify progress and milestones
 3. one month before end of semester to clarify progress and expectations
 4. end of the semester: to present your results

Grading

- 50% of the grade: quality of the survey paper / thesis proposal
- 25% of the grade: quality of the pre-paper talk
- 25% of the grade: quality second chapter
- In order to pass the course you need to achieve at least half of the points for the paper and the presentation, each.

Timeline Masterseminar

- **Oct 14th** (deadline for dropping the course): confirm a topic and supervisor, enter into Moodle
- **Oct 14th**: if you have no topic, either drop the course or email me and I will assign you a topic
- **Oct 14th**: if you didn't drop the course NOR emailed me about a topic it is too late to assign you one, you likely will have to receive a "5" for the course
- meet with supervisor at least twice between agreeing on a topic and presenting your final result
- ~**Dec 1st** — presentation day for pre-paper talk
- ~**Jan 10th** — submission of your survey/expose
- ~**Jan 20th** — submission of 2nd chapter
- (deadlines are strict, no extension possible)

How to find a topic

General remarks

- you want to enjoy it! — what was the most fun subject thus far?
- take advantage of your strength (programming, math, design, ...)
- search for it early (you don't want one assigned)
- talk to potential supervisors!