

Teaching portfolio

1. Teaching CV: A list of any lecturing and supervision tasks, including specification of academic fields, scope, level (bachelor, master, continuing education, PhD) as well as any external examiner tasks.

Lecturer at Aalborg University:

- Algorithms and Data Structures (DAT2, SW2, DV2), period 2020-2022.
- Introduction to Programming (iDA7), period 2015.
- Test and Verification of Software (SW8, ESS8), 2014 (guest Lecturer).
- Introduction to Programming (SWD7), period 2013-2014.
- Study Group on Elements of Convex Analysis and Linear Programming (PhD, Postdoc) December 2012

Teaching Assistance at Aalborg University

- Computability and Complexity (DAT5, SW5, ESS7, IT7), period 2015-2017
- Syntax and Semantics (DAT4, SW4, BAIT6T), period 2014-2016

Project Supervisions:

- Design and Implementation of a Compiler (DAT4), Spring 2022. 4 groups.
- A Well-structured Application (DAT3,SW3), Autumn 2021. 4 groups.
- Design and Implementation of a Compiler (DAT4), Spring 2021. 6 groups.
- A Well-structured Application (DAT3,SW3), Autumn 2020. 5 groups.
- Bachelor Thesis (DAT6), Spring 2020. 1 group.
- Design and Implementation of a Compiler (DAT4), Spring 2020. 3 groups.
- Internet of Things (SW7), Autumn 2019. 7 groups.
- Embedded Systems (SW5), Autumn 2019. 5 groups.
- Design and Implementation of a Compiler (SW4), Spring 2018. 3 groups.
- Embedded Systems (SW5), Autumn 2017. 2 groups.
- Design and Implementation of a Compiler (DAT4,SW4), Spring 2017. 4 groups.
- Embedded Systems (SW5), Autumn 2016. 5 groups.
- Design and Implementation of a Compiler (SW4), Spring 2016. 4 groups.
- Embedded Systems (SW5), Autumn 2015. 2 groups.
- Design and Implementation of a Compiler (SW4), Spring 2015. 2 groups.
- Massive Parallel Systems (DAT5), Autumn 2014. 1 group.
- Internet Technology (SW7), Autumn 2014. 1 group.
- Design and Implementation of a Compiler (SW4), Spring 2014. 2 groups.

External Examiner:

- Bachelor Thesis at DTU - Spring 2022 (supervisor Andrea Vandin)

External teaching activities:

- Programming Languages 2 - MCS, University of Udine (Teaching Assistant).
- Analysis and Verification based on Abstract Interpretation – MCS, University of Udine (Teaching Assistant).

2. Study administration: A list of any study administration tasks, e.g. study board membership, head of studies or semester or course coordinator, accreditation, etc.

- member of the Department Council, representing the DES unit
- semester coordinator for DAT4, period 2020-2023

3. University pedagogy qualifications: A list of any completed courses in university pedagogy, PBL courses, workshops, academic development projects, collegial guidance and supervision, etc.

- Course "PhD Supervisor Workshop". October-November 2021 (2 ECTS).
- Course "University Teacher Education for Assistant Professors" (Adjunktpædagogikum). November 2013 – December 2014 (10 ECTS).
- Workshop in Project Examination at Aalborg University. May 14 2014.
- Basic Course in Problem Based Learning, the AAU-model. March 20 and April 3 2013 (2 ECTS).
- Basic Course in Pedagogy for University Teachers. March 22 and April 2 2013 (2 ECTS).

4. Other qualifications: Conference attendance, editorials, presentations, etc. relating to education, 'University Teaching Day', etc.

- Attendance at 'University teaching Day' Spring 2016
- Poster presentation at 'University teaching Day' Spring 2015

5. Teaching activity development and teaching materials: A list of any contributions to the development of new modules, teaching materials, study programmes, e-learning, collaboration with external business partners, etc.

- From Spring 2020 I provide video lectures for my courses.
- I prepare slides and exercise sessions for my courses and I provide solutions of the exercise sessions online.
- In my supervision, I write feedback notes on various draft reports and provide an electronic copy to the group.

6. Teaching awards you may have received or been nominated for.

- nominee for 'Teacher of the year' 2015-2016
- nominee for 'Teacher of the year' 2014-2015
- nominee for 'Teacher of the year' 2013-2014

7. Personal reflections and initiatives: Here you may state any personal deliberations as regards teaching and supervision, any wishes and plans for further pedagogic development, plans for following up on feedback/evaluations from students, etc.

In all my teaching activities I strive to create a relaxed atmosphere with the aim of creating a dialog with my students. This is achieved by using colloquial expressions, examples and analogies to introduce the concepts that I have to teach them. Once I feel that the class has got the main idea, I go deeper in the theory making a link between the formal terminology and the previously mentioned analogies.

I try to do my best to improve the quality of my teaching activity and the engagement of the students. To evaluate my performance I prepare questionnaires and ask my students to anonymously assess my teaching at the middle and the end of the course.

Reflections on my teaching method:

When preparing my lectures I spend quite some time choosing appropriate examples, possibly taken from their common experience. I experimented with various pedagogic techniques in my lectures, such as constructive alignment, supervised peer learning, self-assessment, peer assessment, and flipped classroom.

I also use quizzes during the lectures to keep the attention high and assess the level of understanding of the class. In particular, I got positive feedback from the students by formulating quizzes in the following fashion. First I present briefly a solution to an exercise telling the students either that the solution is wrong or that it is correct but I am not proud of it; then I ask the students to help me fix my solution or improve it. This technique can be used both during lectures or in the discussion following an exercise session when I implement the flipped-classroom approach.

Reflections on my supervision method:

My supervision activities are done in the form of a dialog where I try to facilitate a discussion among peers (e.g., I ask their opinion regarding some thoughts on their work; I give constructive feedback highlighting both the good and the critical points of their work; etc.). I encourage my groups to take their own choices and spend time on a debated agreement on all aspects of the project work. I facilitate the discussion by posing challenging problems and open questions leaving the student the possibility to structure their learning process based on their own (or shared) experience. To further facilitate this process I point the students to relevant literature, related problems, and tools.

8. Any other information or comments.