such as student feedback, to develop my teaching competence further. In this regard, I cordially invite you to read samples of response letters included in Appendix C.

B. Role in thesis supervision (e.g. supervising, advising, assisting)

Post-Doctoral Students.

- Y. Tian (2021-)
- S. Abdurakhmanova (since 2020, Aalto School of Science TA of the Year 2020)
- L.A. Carafi (2019-2021, now with Finnish meteorological institute (FMI))
- N. Vesselinova (2018, now with Centre Tecnologic de Telecomunicacions de Catalunya)
- S. Aridhi (2016, now Assoc. Prof. at University of Lorraine),

Doctoral Students.

- X. Yang (2022 -), tentative thesis topic "Machine Learning over Networks", partially funded by China Scholarship Council
- D. Pfau (2022-), working on "Machine Learning Law", jointly supervised by Prof. Katri Havu (Faculty of Law, UH, https://researchportal.helsinki.fi/en/persons/katri-havu)
- A. Tilanterä (2021-), working on "Teaching Computer Science with Visualization and Automatic Feedback", jointly supervised by Prof. Lauri Malmi (https://people.aalto.fi/lauri.malmi)
- L. Zhang (2020-2022), working on "Explainable Machine Learning", partially funded by China Scholarship Council
- R. Tervo (2017-2021), thesis "Machine Learning-Based Weather Impact Forecasting" defended Nov. 2021, Opponent: Prof. Kai Puolamäki from University of Helsinki, fully funded by the Finnish Meteorological Institute (FMI)
- N. Tran (2016-2020), thesis "Machine Learning for Networked Data" defended Feb. 2020, Opponent: Prof. Joakim Jalden from KTH Stockholm
- T. Huuhtanen (2017-), working on "Predictive Maintenance for Solar Panels"
- J. Sui (2018-2019) working on "Clustering of Streaming Data", fully funded by China Scholarship Council
- W. Menghao (2018-2019) working on "Reinforcement Learning over Continuous Domains", fully funded by China Scholarship Council

Master Theses. Pls see the corresponding entry in the Aalto library for my precise role (supervisor, advisor).

1) T. Sormunen, *Pallet Detection in Warehouse Environment*, Aalto U., in progress.
2) R. Tikkanen, *Machine learning for Fitness Tracker Data Integration*, industry: https://fjuul.com/, Aalto U., in progress.
3) T. Rahman, *Deep Learning based Intrusion Detection System*, Aalto U., August, 2022.
4) T. Gyabaah, *Machine Learning for Art Fraud Detection*, industry: https://www.blankt.com/, Aalto U., July, 2022.
5) J. Lillfors, *Networked Federated Learning*, Aalto U., July, 2022.
6) A. C. Barcsa-Szabo, *Feature-based Approaches for Ethical News Personalization*, industry: Sanoma Media Finland (https://media.sanoma.fi/), Aalto U., July, 2022.
7) C. Molinero Ranera, *Multi-label classification of a hydraulic system using Machine Learning*, Aalto U., July, 2022.
8) V. Petrutiu, *Exploring Transformers and Degradation Methods in the Super Resolution Field*, industry: Huawei, Aalto U., July, 2022.
9) P. Truong, *Crown-of-Thorns Starfish detection by state-of-the-art YOLOv5*, Aalto U., July, 2022.
10) Y. Huang, *Text analysis of novel coronavirus pneumonia based on federal deep learning*, Aalto U., June, 2022. https://aaltodoc.aalto.fi/handle/123456789/115546
11) C. Ozen, *A collaborative approach for large-scale Electricity consumption using Federated Learning*, Aalto U., June, 2022. https://aaltodoc.aalto.fi/handle/123456789/115282
12) P. Prinsen, *Robust Gas pressure control using Neural Networks*, industry: Wärtsilä Finland Oy, Aalto U., Jan., 2022. https://aaltodoc.aalto.fi/handle/123456789/112627
13) E. Hattula, *Transfer Learning Technology for Building Extraction from Orthophotos and Open-Source Data*, industry: National Land Survey of Finland (https://www.maanmittauslaitos.fi/en), Aalto U., Jan., 2022. https://aaltodoc.aalto.fi/handle/123456789/112450
14) A. Channabasaiah, *Applying machine learning methods to predict taxi pickups using historical taxi data*, Aalto U., Jan., 2022. https://aaltodoc.aalto.fi/handle/123456789/112871

15) R. Hellström, *Aspect Based Sentiment Analysis in Finnish*, industry: Crowst Oy, Aalto U., Jan., 2022. https://aaltodoc.aalto.fi/handle/123456789/112857
16) M. Leinonen, *Federated Multi-task Learning over Networked Data*, Aalto U., June, 2021. https://aaltodoc.aalto.fi/handle/123456789/108261
17) M. Uutaniemi, *Extraction of labeled fields from images of structured documents*, Aalto U., Aug., 2021. https://aaltodoc.aalto.fi/handle/123456789/109305
18) A. Orre, *Pedestrian movement analysis from drone perspective*, Aalto U., Dec., 2021. https://aaltodoc.aalto.fi/handle/123456789/111730
19) P. Vijayakrishnan, *Semi-supervised machine learning techniques for infant motility classification*, Aalto U., Oct., 2021. https://aaltodoc.aalto.fi/handle/123456789/110565
20) J. Seppälä, *Application of machine learning to link click predictions in Facebook Family of Apps advertising*, Aalto U., 2021. https://aaltodoc.aalto.fi/handle/123456789/106829
21) K. Kutlu, *Machine Learning based Chaos Engineering for Cloud-Native Microservice Architectures*, industry: Ericsson, Aalto U., Aug., 2021. https://aaltodoc.aalto.fi/handle/123456789/109355
22) K. Ariko, *Increasing the safety in the proximity of the mobile working machines: a study of detecting people*, industry: Epec Oy, Aalto U., Oct., 2021. https://aaltodoc.aalto.fi/handle/123456789/110498
23) M. Afteniy, *Predicting time series with Transformer*, Aalto U., May, 2021. https://aaltodoc.aalto.fi/handle/123456789/107662
24) Z. Mohammadi, *Better Utilization of Relational Data in Machine Learning*, industry: Lamia Oy, Aalto U., May, 2021. https://aaltodoc.aalto.fi/handle/123456789/107604
25) T. Nguyen, *Applying Machine Learning to Develop Black-box Control Model of Active Double-Skin Facade*, Aalto U., Jan., 2021. co-supervised with Prof. H. Ihasalo, https://aaltodoc.aalto.fi/handle/123456789/102547
26) P. Pyrrö, *AIR: Aerial Inspection RetinaNet for Land Search and Rescue Missions*, industry: Accenture, Aalto U., Jan., 2021, https://aaltodoc.aalto.fi/handle/123456789/112856
27) T. Kokkonen, *Classifying Restaurant Menu Items With Supervised Learning*, Aalto U., Jan., 2021. https://aaltodoc.aalto.fi/handle/123456789/102433
28) C. Dikmen, *Application of Contextual Bandits Models in a Supervised Learning Setting*, Aalto U., Aug., 2020. https://aaltodoc.aalto.fi/handle/123456789/46314
29) J. Laiho, *Recognizing Thoughts from Bioelectric Patterns? A Brain-Computer Interface with Deep Learning*, industry: Accenture Liquid Studio (NL), Aalto U., Aug., 2020. https://aaltodoc.aalto.fi/handle/123456789/46105
30) X. Zhang, *Diagnostic and Prognostic Analysis Optimization of Field Problems for EV Charging Stations*, industry: ABB, Aalto U., Aug., 2020. https://aaltodoc.aalto.fi/handle/123456789/46045
31) T. Hämmäinen, *Clustering IoT devices for network intrusion detection systems*, industry: Ericsson, Aalto U., May, 2020. https://aaltodoc.aalto.fi/handle/123456789/44266
32) T. Valentijn, *The Practical Applicability of a CNN for Automated Building Damage Assessment*, industry: Red Cross NL (https://www.510.global/), Aalto U., June, 2020. co-supervised with Dr. Jorma Laaksonen, https://aaltodoc.aalto.fi/handle/123456789/44991
33) J. Nieminen, *Framework for application of machine learning algorithms in telecommunications*, industry: Nokia Oyj, Aalto U., Mar., 2020. https://aaltodoc.aalto.fi/handle/123456789/43572
34) M. Mishin, *Anomaly Detection Algorithms and Techniques for Network Intrusion Detection Systems*, industry: Ericsson, Aalto U., Aug., 2020. https://aaltodoc.aalto.fi/handle/123456789/46076
35) D. Tokmurzina, *Road marking condition monitoring and classification using deep learning for city of Helsinki*, Aalto U., Oct., 2020. https://aaltodoc.aalto.fi/handle/123456789/47388
36) I. Vikström, *Deep reinforcement learning approach for HVAC control*, industry: TietoEVRY Oyj, Aalto U., Dec., 2020. https://aaltodoc.aalto.fi/handle/123456789/97613
37) K. Klemets, *Forecasting Hourly Parking Occupancy with Multiple Seasonalities*, industry: City of Helsinki, Aalto U., Aug., 2020. https://aaltodoc.aalto.fi/handle/123456789/45990
38) J. Moisala, *Optimizing the mark-up of foreign exchange derivative contracts using machine learning*, Aalto U., May,

2020. https://aaltodoc.aalto.fi/handle/123456789/44353

39) L. Kolehmainen, *A web scraping system for extracting news articles*, industry: Vainu Finland Oy, Aalto U., Dec., 2019. https://aaltodoc.aalto.fi/handle/123456789/41693
40) T. Wiro, *Market influence on purchase prices in procurement*, industry: Sievo, Aalto U., June, 2019. https://aaltodoc.aalto.fi/handle/123456789/39059
41) J. Eskonen, *Deep Reinforcement Learning in Automated User Interface Testing*, industry: Ericsson, Aalto U., May, 2019. https://aaltodoc.aalto.fi/handle/123456789/37895
42) A. Moskalev, *Demand forecasting for fast-moving products in grocery retail* , industry: Relex, Aalto U., May, 2019, https://aaltodoc.aalto.fi/handle/123456789/37915
43) D. Baad, *Automatic Job Skill Taxonomy Generation For Recruitment Systems*, industry: VXT Research Oy, Aalto U., June, 2019. https://aaltodoc.aalto.fi/handle/123456789/38986
44) K. Karapetyan, *Process Mining of Automation Services with Long Short-Term Memory Neural Networks*, industry: Posti Group Oyj, Aalto U., March, 2019. https://aaltodoc.aalto.fi/handle/123456789/37178
45) J. Kahles, *Applying Machine Learning to Root Cause Analysis in Agile CI/CD Software Testing Environments*, industry: Ericsson, Aalto U., Jan., 2019. https://aaltodoc.aalto.fi/handle/123456789/36347
46) H. Ambos, *Semi-Supervised Learning over Complex Networks*, Aalto U., Mar., 2019. https://aaltodoc.aalto.fi/handle/123456789/37130
47) M. Torres Porta, *Anti-Money Laundering system based on customer behavior*, Aalto U., Aug., 2019. https://aaltodoc.aalto.fi/handle/123456789/39938
48) A. Shehata, *Cellular Network Average User Throughput-Downlink Prediction by Machine Learning*, industry: Nokia, Aalto U., Dec., 2018. https://aaltodoc.aalto.fi/handle/123456789/35471
49) O. Abramenko, *Graph signal sampling via reinforcement learning*, Aalto U., Nov., 2018. https://aaltodoc.aalto.fi/handle/123456789/34750
50) M.O. Nasir, *Supervised Learning in Lighting Control Systems*, Aalto U., Oct., 2018. https://aaltodoc.aalto.fi/handle/123456789/34394
51) D. Wu, *Unsupervised Learning for Lighting Control System*, industry: Helvar Oy, Aalto U., Oct., 2018. https://aaltodoc.aalto.fi/handle/123456789/34384
52) N. Pokhrel, *Drone Obstacle Avoidance and Navigation Using Artificial Intelligence*, industry: Nokia, Aalto U., May, 2018. https://aaltodoc.aalto.fi/handle/123456789/31561
53) D. Koskeniemi, *Do financial networks improve the explanatory power of the Fama-French factors? A comparison of propagation algorithms on stock market returns* , Aalto U., March, 2018. https://aaltodoc.aalto.fi/handle/123456789/30542
54) S.B. Jahromi, *Compressed Sensing for Big Data Over Complex Networks*, Aalto U., Jan., 2018. https://aaltodoc.aalto.fi/handle/123456789/29671
55) A. Mara, *A Comparative Analysis of Graph Signal Recovery Methods for Big Data Networks*, Aalto U., Oct., 2017. https://aaltodoc.aalto.fi/handle/123456789/28567
56) Y. Gao, *Graphical Model Selection in Big Data Application*, Aalto University, Dec., 2016. https://aaltodoc.aalto.fi/handle/123456789/23908
57) B. Kausl, *Channel aware inference based on the Fisher information*, TU Vienna, 2012. co-supervised with Prof. Franz Hlawatsch,, http://hdl.handle.net/20.500.12708/8885

The methods in supervising. Pragmatic and adaptive to the specific student need. I found it useful to ask students to do a self-assessment of their thesis. This self-assessment uses the same format and grade characterizations (see, e.g., https://mycourses.aalto.fi/course/view.php?id=19277&section=9 for master thesis) that are used by myself in the actual thesis evaluation. Sometimes I also encourage students to peer-review each others work. However, this is not always possible as students are in different stages of their thesis work. In general, I try to make students aware that reading (peer-reviewing) is at least as important as the writing component in scientific communication.

My development as a supervisor. Significant and continuous. It is important to clearly communicate the expectations form the supervision relationship. The student must be made aware that the role of a supervisor is not that of a co-author. I find it also crucial to keep a professional distance, and not try to be the "friendly professor", such that (potentially uncomfortable)