

Master Thesis Supervision at Aalto University

1. J. Himanen, *Towards a data-driven circular economy: predicting material streams in the construction industry*, in progress.



¹⁰ LAKES

2. T. Vanhala, *Deep Learning Portfolios*, in progress.



3. A. Agisheva, *Reviewer Ethics in Machine Learning Research*, in progress.

4. T. Sormunen, *Pallet Detection in Warehouse Environment*, industry: <https://www.wartsila.com/>, in progress.



WÄRTSILÄ

5. R. Tikkanen, *Machine learning for Fitness Tracker Data Integration*, industry: <https://fjuul.com/>, in progress.



6. T. Rahman, *Intrusion Detection system based on Deep Learning*, Aug. 2022. <https://aaltodoc.aalto.fi/handle/123456789/116391>

7. T. Gyabaah, *Machine Learning for Art Fraud Detection*, industry: <https://www.blankt.com/>, Jul. 2022.



8. J. Lillfors, *Networked Federated Learning*, Jul. 2022.

9. A. C. Barcsa-Szabo, *Feature-based Approaches for Ethical News Personalization*, industry: Sanoma Media Finland (<https://media.sanoma.fi/>), Jul. 2022. **s a n o m a**

10. C. Molinero Ranera, *Multi-label classification of a hydraulic system using Machine Learning*, Jul. 2022.

11. V. Petrutiu, *Exploring Transformers and Degradation Methods in the Super Resolution Field*, industry: Huawei, Jul. 2022.









12. P. Truong, *Crown-of-Thorns Starfish detection by state-of-the-art YOLOv5*, Jul. 2022.









13. Y. Huang, *Text analysis of novel coronavirus pneumonia based on federal deep learning*, June 2022. <https://aaltodoc.aalto.fi/handle/123456789/115546>










14. C. Ozen, *A collaborative approach for large-scale Electricity consumption using Federated Learning*, June 2022. <https://aaltodoc.aalto.fi/handle/123456789/115282>

15. P. Prinsen, *Robust Gas pressure control using Neural Networks*, industry: Wärtsilä Finland Oy, Jan. 2022. <https://aaltodoc.aalto.fi/handle/123456789/112627>



16. 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>), Jan. 2022. <https://aaltodoc.aalto.fi/handle/123456789/112450> 
17. A. Channabasaiah, *Applying machine learning methods to predict taxi pickups using historical taxi data*, Jan. 2022. <https://aaltodoc.aalto.fi/handle/123456789/112871>
18. R. Hellström, *Aspect Based Sentiment Analysis in Finnish*, industry: Crowst Oy, Jan. 2022. <https://aaltodoc.aalto.fi/handle/123456789/112857> 
19. M. Leinonen, *Federated Multi-task Learning over Networked Data*, June 2021. <https://aaltodoc.aalto.fi/handle/123456789/108261>
20. M. Uutaniemi, *Extraction of labeled fields from images of structured documents*, Aug. 2021. <https://aaltodoc.aalto.fi/handle/123456789/109305>
21. A. Orre, *Pedestrian movement analysis from drone perspective*, Dec. 2021. <https://aaltodoc.aalto.fi/handle/123456789/111730>
22. P. Vijayakrishnan, *Semi-supervised machine learning techniques for infant motility classification*, Oct. 2021. <https://aaltodoc.aalto.fi/handle/123456789/110565>
23. J. Seppälä, *Application of machine learning to link click predictions in Facebook Family of Apps advertising*, 2021. <https://aaltodoc.aalto.fi/handle/123456789/106829>
24. K. Kutlu, *Machine Learning based Chaos Engineering for Cloud-Native Microservice Architectures*, industry: Ericsson, Aug., 2021. <https://aaltodoc.aalto.fi/handle/123456789/109355> 
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25. K. Ariko, *Increasing the safety in the proximity of the mobile working machines: a study of detecting people*, industry: Epec Oy, Oct. 2021. <https://aaltodoc.aalto.fi/handle/123456789/110498> 
26. M. Afteniy, *Predicting time series with Transformer*, May, 2021. <https://aaltodoc.aalto.fi/handle/123456789/107662>
27. Z. Mohammadi, *Better Utilization of Relational Data in Machine Learning*, industry: Lamia Oy, May, 2021. <https://aaltodoc.aalto.fi/handle/123456789/107604> 
28. 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>
29. P. Pyrrö, *AIR: Aerial Inspection RetinaNet for Land Search and Rescue Missions*, industry: Accenture, Jan., 2021, <https://aaltodoc.aalto.fi/handle/123456789/112856> 

30. T. Kokkonen, *Classifying Restaurant Menu Items With Supervised Learning*, Jan. 2021. <https://aaltodoc.aalto.fi/handle/123456789/102433>
31. C. Dikmen, *Application of Contextual Bandits Models in a Supervised Learning Setting*, Aug. 2020. <https://aaltodoc.aalto.fi/handle/123456789/46314> 
32. 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> 
33. X. Zhang, *Diagnostic and Prognostic Analysis Optimization of Field Problems for EV Charging Stations*, industry: ABB, Aug., 2020. <https://aaltodoc.aalto.fi/handle/123456789/46045> 
34. T. Hämäläinen, *Clustering IoT devices for network intrusion detection systems*, industry: Ericsson, May, 2020. <https://aaltodoc.aalto.fi/handle/123456789/44266> 
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35. T. Valentijn, *The Practical Applicability of a CNN for Automated Building Damage Assessment*, industry: Red Cross NL (<https://www.510.global/>), June, 2020. co-supervised with Dr. Jorma Laaksonen, <https://aaltodoc.aalto.fi/handle/123456789/44991> 
36. J. Nieminen, *Framework for application of machine learning algorithms in telecommunications*, Nokia Oy, Mar. 2020. <https://aaltodoc.aalto.fi/handle/123456789/43572> **NOKIA**
37. M. Mishin, *Anomaly Detection Algorithms and Techniques for Network Intrusion Detection Systems*, Ericsson, Aug. 2020. <https://aaltodoc.aalto.fi/handle/123456789/46076> 
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38. D. Tokmurzina, *Road marking condition monitoring and classification using deep learning for city of Helsinki*, Oct. 2020. <https://aaltodoc.aalto.fi/handle/123456789/47388>
39. I. Vikström, *Deep reinforcement learning approach for HVAC control*, industry: TietoEVRY Oyj, Dec. 2020. <https://aaltodoc.aalto.fi/handle/123456789/97613> **tieto EVRY**
40. K. Klemets, *Forecasting Hourly Parking Occupancy with Multiple Seasonalities*, industry: City of Helsinki, Aug. 2020. <https://aaltodoc.aalto.fi/handle/123456789/45990> 
41. J. Moisala, *Optimizing the mark-up of foreign exchange derivative contracts using machine learning*, May 2020. <https://aaltodoc.aalto.fi/handle/123456789/44353>
42. L. Kolehmainen, *A web scraping system for extracting news articles*, Vainu Finland Oy, Dec. 2019. <https://aaltodoc.aalto.fi/handle/123456789/41693>  **VAINU**

43. T. Wiro, *Market influence on purchase prices in procurement*, industry: Sievo, June, 2019. <https://aaltodoc.aalto.fi/handle/123456789/39059> 
44. J. Eskonen, *Deep Reinforcement Learning in Automated User Interface Testing*, Ericsson, May, 2019. <https://aaltodoc.aalto.fi/handle/123456789/37895> 
45. A. Moskalev, *Demand forecasting for fast-moving products in grocery retail*, Relex, May, 2019, <https://aaltodoc.aalto.fi/handle/123456789/37915> 
46. D. Baad, *Automatic Job Skill Taxonomy Generation For Recruitment Systems*, VXT Research Oy, June, 2019. <https://aaltodoc.aalto.fi/handle/123456789/38986> 
47. K. Karapetyan, *Process Mining of Automation Services with Long Short-Term Memory Neural Networks*, industry: Posti Group Oyj, March, 2019. <https://aaltodoc.aalto.fi/handle/123456789/37178> 
48. J. Kahles, *Applying Machine Learning to Root Cause Analysis in Agile CI/CD Software Testing Environments*, industry: Ericsson, Jan. 2019. <https://aaltodoc.aalto.fi/handle/123456789/36347> 
49. H. Ambos, *Semi-Supervised Learning over Complex Networks*, Mar. 2019. <https://aaltodoc.aalto.fi/handle/123456789/37130>
50. M. Torres Porta, *Anti-Money Laundering system based on customer behavior*, Aug. 2019. <https://aaltodoc.aalto.fi/handle/123456789/39938>
51. A. Shehata, *Cellular Network Average User Throughput-Downlink Prediction by Machine Learning*, Nokia, Dec. 2018. <https://aaltodoc.aalto.fi/handle/123456789/35471> 
52. O. Abramenko, *Graph signal sampling via reinforcement learning*, Nov. 2018. <https://aaltodoc.aalto.fi/handle/123456789/34750>
53. M.O. Nasir, *Supervised Learning in Lighting Control Systems*, Oct. 2018. <https://aaltodoc.aalto.fi/handle/123456789/34394>
54. D. Wu, *Unsupervised Learning for Lighting Control System*, Helvar Oy, Oct. 2018. <https://aaltodoc.aalto.fi/handle/123456789/34384> 
55. N. Pokhrel, *Drone Obstacle Avoidance and Navigation Using Artificial Intelligence*, industry: Nokia, May 2018. <https://aaltodoc.aalto.fi/handle/123456789/31561> 
56. D. Koskeniemi, *Do financial networks improve the explanatory power of the Fama-French factors? A comparison of propagation algorithms on stock market returns*, Mar. 2018. <https://aaltodoc.aalto.fi/handle/123456789/30542>

57. S.B. Jahromi, *Compressed Sensing for Big Data Over Complex Networks*, Jan. 2018. <https://aaltodoc.aalto.fi/handle/123456789/29671>
58. A. Mara, *A Comparative Analysis of Graph Signal Recovery Methods for Big Data Networks*, Oct. 2017. <https://aaltodoc.aalto.fi/handle/123456789/28567>
59. Y. Gao, *Graphical Model Selection in Big Data Application*, Dec. 2016. <https://aaltodoc.aalto.fi/handle/123456789/23908>

Master Thesis Supervision at TU Vienna

1. 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>