Deep learning solutions for domain-specific image segmentation

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List of Publications

Publications that are part of this thesis:

1. Şerban Vădineanu, Daniël M. Pelt, Oleh Dzyubachyk, and Kees Joost Batenburg. An analysis of the impact of annotation errors on the accuracy of deep learning for cell segmentation. *In International Conference on Medical Imaging with Deep Learning*, Proceedings of Machine Learning Research, pages 1251–1267. PMLR, 2022.

2. Şerban Vădineanu, Daniël M. Pelt, Oleh Dzyubachyk, and Kees Joost Batenburg. Reducing manual annotation costs for cell segmentation by upgrading low-quality annotations. *In International Workshop on Medical Image Learning with Limited and Noisy Data*, Lecture Notes in Computer Science, pages 3-13. Springer, 2023.*

3. Şerban Vădineanu, Daniël M. Pelt, Oleh Dzyubachyk, and Kees Joost Batenburg. Reducing manual annotation costs for cell segmentation by upgrading low-quality annotations. *Journal of Imaging*, 10(7):172, 2024.*

4. Şerban Vădineanu, Tuna Kalayci, Daniël M. Pelt, and Kees Joost Batenburg. Convolutional neural networks and their activations: An exploratory case study on mounded settlements. *Journal of Computer Applications in Archaeology*, 7(1), 2024.

5. Şerban Vădineanu, Daniël M. Pelt, Oleh Dzyubachyk, and Kees Joost Batenburg. From feature maps to few-shot cell segmentation. *In International Workshop on Medical Optical Imaging and Virtual Microscopy Image Analysis*, Lecture Notes in Computer Science. Springer, 2025.†

Publications that are not part of this thesis:

1. Şerban Vădineanu and Mitra Nasri. Robust and accurate regression-based techniques for period inference in real-time systems. *Real-Time Systems*, 58(3), 2022.

∗: Paper 3 is the journal extension of Paper 2.
†: Paper 5 was awarded runner-up best paper at MOVI2024 workshop.