pzxocs@gmail.com
github.com/pzxocs
linkedin.com/in/pzxocs

Daniel Batrakhanov

PROFILE

I am a researcher specializing in machine learning and computer vision, with three years of experience at the CVPR laboratory at LUT. My expertise lies in deploying deep neural networks for classification, object detection, and segmentation tasks. I have strong programming skills in Python and am proficient with essential libraries for machine learning and data analytics. Additionally, I have a specialization in the machine learning framework PyTorch. I am committed to continuous professional development in machine learning and computer vision. Recently, I have also started participating in competitive challenges on the Kaggle platform.

TECH SKILLS

Programming:

MATLAB	★★★☆☆
Python (ML&DS)	★★★☆☆
SQL	★★☆☆☆

Tools and Technologies:

Git, Docker, Singularity, Linux and Unix-like OS, Windows

LANGUAGES

French	**A2**
English	**B2**
Russian	**native**

ACTIVITIES

EEML Summer School • 2022
Napoleon IT MobDev • 2020
Samsung IoT Academy • 2020

EXPERIENCE

Researcher 2021 - 2024
LUT University Lappeenranta, Finland
Conducted scientific research for the FASTVISION-plus project, which integrates state-of-the-art plankton imaging equipment with advanced computer vision and image analysis techniques. The goal was to develop a device-independent recognition model that enhances our understanding and identification of various plankton species.

- Supervision, teaching and article writing skills
- Researching and implementing Convolutional Neural Networks in a domain-adaptation field on a Finnish supercomputers
- Pytorch, MLflow, OpenCV, NumPy, SciPy, Sklearn and etc.

EDUCATION

Master's degree 2019-2021
LUT University Lappeenranta, Finland
School of Engineering Sciences

- Computational Engineering and Technical Physics GPA: **4.8**

Master's degree 2019-2021
South Ural State University Chelyabinsk, Russia
School of Electronic Engineering and Computer Sciences

- Fundamental Computer Science and Information Technology GPA: **5**

Bachelor's degree 2015-2019
South Ural State University Chelyabinsk, Russia
School of Electronic Engineering and Computer Sciences

- Informatics and Computer Engineering GPA: **4.2**

PUBLICATIONS

[1] D. Batrakhanov, T. Eerola, K. Kraft, L. Haraguchi, L. Lensu, S. Suikkanen, and et al.. DAPlankton: Benchmark Dataset for Multi-instrument Plankton Recognition via Fine-grained Domain Adaptation. arXiv preprint arXiv:2402.05615, 2024.

[2] D. Batrakhanov, F. Zolotarev, T. Eerola, L. Lensu, and H. Kälviäinen. Virtual sawing using generative adversarial networks. In 2021 36th International Conference on Image and Vision Computing New Zealand (IVCNZ), pages 1–6, 2021.

[3] S. Bilik, D. Batrakhanov, T. Eerola, L. Haraguchi, K. Kraft, and et al. Toward phytoplankton parasite detection using autoencoders. Machine Vision and Applications, 34(6), Sept. 2023.

[4] T. Eerola, D. Batrakhanov, N. V. Barazandeh, K. Kraft, and et al. Survey of automatic plankton image recognition: Challenges, existing solutions and future perspectives. Artificial Intelligence Review, 57(5):114, 2024.

15th May 2024