Yahor Dziomin

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Profile

MSc student in Data Science & AI at TU Delft with practical experience in developing and maintaining ML systems. Interested in advancing AI capabilities and applying them to solve real-world challenges with scalable, impactful solutions. Eager to learn and build.

Skills

Programming Languages: Python, Java, SQL (MySQL, SQLite, PostgreSQL), C++, JavaScript, R, MATLAB
Frameworks: PyTorch, scikit-learn, OpenCV, Pandas, NumPy, NLTK
Tools: Git, Docker, Kubernetes, GitHub Actions, AWS (CloudFormation, Lambdas, StepFunctions, S3, ECR), UNIX, GCP, Jupyter, ONNX, Jenkins CI/CD
Spoken Languages: English (Professional), Dutch (Elementary), Russian (Native)

Education

MSc Data Science and AI Technology Sep 2024 – Jul 2026
Delft University of Technology, Netherlands
Relevant Courses: Deep RL, Computer Vision, Multimedia Research, Applied Image Processing, 3D Visual Computing, Release Engineering, Sequential Decision Making

BSc Data Science and AI Sep 2021 – Jul 2024
Maastricht University, Netherlands
Relevant Courses: NLP, ML, Recommender Systems, Cloud Computing
GPA: 8.72/10, Cum Laude
Thesis: Personalised Fluid Intake Predictions In Professional Cycling Using Machine Learning
Honours: KE@Work (2-year research-industry internsip programme)

Experience

ML Developer Trainee/ Former Data Science Intern Sep 2022 – Present
Visma Connect, Netherlands

- Designed and deployed end-to-end ML systems for physiological predictions (hydration, nutrition) using geospatial, environmental and physiological data for the top-tier international cycling team **Visma | Lease a Bike** to optimize the performance of the athletes.
- Developed a novel, non-invasive, and practically deployable ML method for estimating cyclists' hydration levels, achieving performance comparable to lab-based approaches (**MAE of 0.41 $\pm$ 0.35 kg**).
- Created a fully automated MLOps framework for continuous data retrieval, model training, model deployment and monitoring. Reduced overall **MAE by 13%** through the improved model lifecycle, and eliminated engineering overhead.
- Designed a **97+%** accuracy algorithm to detect a rider's participation in a race from geospatial data.
- Led critical API provider migration while maintaining full backward compatibility and ensuring zero service disruption.

Key Projects

Pedestrian Detection (CV) *(Group Project)* Blog Repository Feb 2025 – Mar 2025
Finetuned and benchmarked detection models (YOLOv8, RT-DETR) under varying occlusion and crowd conditions. Performed in-depth qualitative error analysis and visual interpretation of attention areas with LIME and EigenCAM.

Amazon KDD Cup 2023 (NLP, Recommender Systmes) *(Group Project)* Repository May 2023 – Jun 2023
Predicted next item in Amazon webshop sessions using TF-IDF, Word2Vec, and fine-tuned T5 transformer.

Expense Tracker (Software, Architecture) *(Individual Project)* Preview Repository Nov 2022 – Aug 2023
Designed and implemented a CLI expense tracker with a database, categorization, and spending analysis.

Crazy Golf Simulator with AI Bots (Software, ML) *(Group Project)* Video Repository Feb 2022 – Jun 2022
Co-created a 3D golf game and environment in **Java** with terrain generation, path-finding algorithm and AI bots. Focused on the game engine physics, AI bots and spline-based terrain editing.

Pentamino Packaging (Software, Algorithms) *(Group Project)* Repository Sep 2021 – Jan 2022
Implemented algorithms to solve 2D and 3D pentomino packing problems in **Java**; designed a modular 2D solution framework with gravity constraints, and co-developed a 3D greedy placement strategy for efficient spatial allocation.