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Jovan Cicvaric

Proficient: Python, PyTorch, NumPy, SQLite, PostgreSQL, HTML, Scikit-learn, pandas, Flask, Git, Celery
Familiar: Keras, React, Docker, Kubernetes, Helm Charts, MLflow, RabbitMQ, Triton Inference, ONNX
Languages: English (Advanced), German (Intermediate), Serbian (Native), Russian (Fluent)

WORK EXPERIENCE

Optocycle GmbH, Tübingen (Germany)

02/2024 – present **Machine Learning Engineer | Python, PyTorch, Docker, Kubernetes, RabbitMQ, Helm**

- Developed classification model for construction waste, achieving 90+% accuracy
- Developed model for estimating object sizes with monocular camera
- Developed labeling pipeline and supervised labeling of more than 20k images
- Developed model for plastics classification by combining multispectral classification with LLM
- Conducted studies exploring classification performance in multispectral vs RGB domains

Autonomous Vision Group, Tübingen (Germany)

06/2023 – present **Research Engineer**

06/2021 – 05/2023 **Research Assistant | Flask, React, SQLite, Python**

- Full stack development of a scientific paper recommendation system Scholar-Inbox.com
- Using personalized models trained on users' previous votes and selected authors for making recommendations.
- Optimized SQL queries, Python code, and our embedding storage system for lower latency and memory usage extensively.
- Developed a registration pipeline that facilitated over 20k+ new users

EDUCATION

10/2020 – 05/2023 **University of Tübingen** (Germany)
Master of Science, Machine Learning, GPA 1.1, Graduated with distinction

09/2016 – 07/2020 **Moscow Institute of Physics and Technology** (Russia)
Bachelor of Science, Applied Mathematics and Physics, GPA 4.66 (Top 5% student)

PROJECTS

2023 **Generative Dataset Distillation | Python, PyTorch, WandB**

- Master Thesis project done under the supervision of Prof. Andreas Geiger
- Merged dataset distillation and generative modelling fields
- Our approach, GenDM, ranked 2nd place and won the Best Paper Award at the 2024 Dataset Distillation Challenge (Generative Track).
- Worked with different generative models, such as StyleGAN2 and StyleGAN-XL
- Conducted extensive research of existing distillation methods and compared proposed techniques

2021 **Laser-hockey RL | Python, PyTorch, OpenAI Gym, NumPy**

- Implemented Deep Deterministic Policy Gradient (DDPG) and Twin Delayed DDPG (TD3)

2021 **CarRacing IL & RL | Python, PyTorch, OpenAI Gym, NumPy**

- Implemented Deep Q-Network (DQN), Imitation Learning and Modular pipeline with geometric controller for CarRacing environment from OpenAI Gym