Vladislav Serkov

Senior Machine Learning Engineer I Deep Learning Expert

Helsinki, Finland, open to relocation
+358407306647 | vladserkoff@pm.me | linkedin.com/in/vladserkoff | github.com/vladserkoff

Summary

Accomplished Senior Machine Learning Engineer and a Python developer with a specialized focus on deep learning technologies and a track record of developing high-impact solutions in computer vision. Proficient in enhancing data processing pipelines, model accuracy, and operational cost reduction. Experienced in applying multimodal techniques to projects, adept in delivering complex AI projects that consistently exceed performance benchmarks.

Key Skills & Technologies

- Deep Learning: Neural network design, optimization, and deployment for vision and point cloud data.
- Computer Vision: CNNs, Object detection, image segmentation, and sensor fusion, OpenCV.
- Machine Learning Tools: PyTorch, Scikit-learn, AWS Sagemaker, Transformers.
- Data Engineering: Efficient large-scale data pipeline design, vector databases, PostgreSQL.
- Multimodal LLMs: BERT, Stable Diffusion fine-tuning with LORAs, CLIP embeddings, prompt engineering.
- Model Optimization: Quantization, pruning, and compression.
- Languages and tools: Python, SQL, Bash, Docker, Git.
- Team Leadership: Junior scientist mentorship and project team direction.

Professional Experience

Senior Deep Learning Engineer, SharperShape, September 2019 - Present

- Reduced 3D point cloud segmentation time by 50% using novel graph neural network architecture.
- Reduced model training time from 7 days to 20 hours, cutting costs by 80%.
- Developed and maintained object detection, classification, and segmentation pipelines, boosting label team productivity by 50-70%.
- Implemented a tree species classifier using hyperspectral data, 30% more accurate than RGB baseline.
- Lowered false negative rate by 30% on object detector by fusing LiDAR and RGB data streams.
- Improved RGB camera and LiDAR sensor calibration by 15% through edge and line detection algorithms.
- Delivered 10+ educational presentations, sharing insights and best practices with upper management and cross-functional teams.
- Improved development workflows, including PR reviews for 5+ teammates, and enforced coding standards, such as docstrings and type hinting.

Deep Learning Engineer, Dexpa, November 2018 - August 2019

- Engineered a neural network based time-series forecasting pipeline beating human performance by 3%.
- Researched SOTA approaches for stock and currency exchange markets.
- Mentored an intern to full data scientist role within one year, emphasizing hands-on training and project ownership.

Senior Data Scientist, Stream, DCA, Flocktory, Mamsy, March 2014 - October 2018

- Created a person identification system for event imagery, serving over 100 employees.
- Optimized high-load real time bidding system increasing profitability manifold.
- Compiled an extensive embedding catalog of 100M web pages for categorization and clustered 300M users by interests.
- Built customer purchase matching tool by creating unified product taxonomy using NLP tools.
- Optimized banner ad placements via reinforcement learning.

Education

National Research University Higher School of Economics

Economist, September 2008 - August 2013