ALEKSANDR RAZIN

Computer vision researach engineer with 5 years of industrial and academia experience

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// EDUCATION

ITMO University | MSc Big Data and Machine Learning | GPA: 4.9/5 — 2022 – 2024
Thesis: "Enhancing Image Super Resolution through Depth Estimation"
Researched depth-SR fusion methods; designed and executed experiments and ablation studies
Teaching Assistant – Advanced Machine Learning Technologies: led practical sessions for ~30 students

Mining University | BSc Construction and repair of oil and gas pipelines | GPA: 4.4/5 — 2018 – 2022
Thesis: "Real-time obstacle detection and analysis for robotic exploration"
Engineered an oil & gas pipeline and LiDAR inspection robot; authored CV software for automated defect detection
Teaching Assistant – Experimental Physics: led lab sessions for ~20 students

// EXPERIENCE

Startup | Lead Research Engineer — Apr 2025 – Sep 2025
Secured ~€100K funding; scaled solutions to 3 of the top-5 retailers
- Built depth estimation software for warehouse transport systems, decreasing emergency incident rates
- Mentored 5 ML engineers from experimentation to deployment; delivered vision analytics to 3 top-5 national retailers

Huawei Research Center | Computer vision research engineer — Dec 2023 – Apr 2025
Ranked among the world's top 10 most innovative companies in 2023🔗
- Developed ISR and generative architectures, outperforming open-source in latency and improving FID by ~10% at 2K
- Simplified latent-diffusion architecture and integrated spatial priors, enhancing high-frequency texture generation
- Led fine-tuning of quantized Mate-70🔗 checkpoints; designed curriculum learning and loss functions, reducing night-HDR video ghosting and flicker on millions of smartphones
- Designed a weight-merging algorithm for video restoration, improving PSNR by 10% over SOTA on internal and NTIRE benchmarks; presented to research directors

Huawei Research Center | Research Intern — May 2023 – Sep 2023
Ranked among the world's top 10 most innovative companies in 2023🔗
- Achieved >30% ROUGE gain in domain-specific LLM generation via query classification and LoRA-DPO
- Integrated metric-learned visual encoders into internal LLMs, enabling multimodal question answering

ITMO University | Deep Learning Engineer — Sep 2022 – May 2023
#153 QS WUR Ranking By Computer Science Subject🔗
- Utilized knowledge distillation to banknote segmentation models, reducing FLOPs by 20% with no performance loss
- Applied contrastive learning to a SOTA classification backbone for fake-stamp detection, improving F1 by 10%

Mining University | Research Assistant — Jan 2021 – Dec 2021
#4 QS WUR Ranking By Engineering Subject🔗
- Developed obstacle-detection and defect-segmentation software on a LiDAR robot, enabling previously inaccessible inspections and reducing costs by ~€56k+/year

// SELECTED PUBLICATIONS

One Small Step in Latent, One Giant Leap for Pixels: Fast Latent Upscale Adapter for Your Diffusion Models🔗
arXiv preprint, **Hugging Face Daily Paper #1**🔗, 2025
A. Razin, D. Kazantsev, I. Makarov
Contribution: Designed experiments, authored paper

Improving question answering in programming domain with pretrained language model fine tuning using structured diverse online forum data🔗
Journal Scientific and Technical of Information Technologies, Mechanics and Optics, 2024
Gorbatovski, A.V., Razin, A.D., Aliev, A.A., Kovalchuk, S.V.
Contribution: led experiments in classification, representation learning, and RL; co-authored paper sections

Robot crawler for surveying pipelines and metal structures of complex spatial configuration🔗
MDPI Infrastructures, 2022
Pshenin, V., Liagova, A., Razin, A., Skorobogatov, A., Komarovsky, M.
Contribution: developed 3D detection and segmentation pipelines; co-authored paper sections

// AWARDS

Kaggle: "OTTO – Multi-Objective Recommender System", top 10% out of 2,574 teams🔗 — 2023
Grant winner, Russian Student Startup: top 5% out of ~10k teams (~€15k) — 2023
Prize holder, Russian Olympiad in Phys. & Math. "Star" - Spacecraft track, top 2% of ~8k participants — 2018

// SKILLS

Python, PyTorch, TensorFlow, JAX, DeepSpeed, vLLM, Diffusers, TRL, ComfyUI, Git, CI/CD, AWS, Airflow
Scientific writing, experimental design, collaboration, mentoring, leadership