Anton Ganichev

Computer Vision Engineer & AI Consultant

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I do research and prototyping in **Computer Vision** and **generative models** (images/video). I help research and engineering teams apply AI in practice, combining hands-on implementation with mentoring and knowledge transfer. My recent focus is **conditional generation** and **diffusion-based** image/video **editing**.
26+ years in IT / software development.

What I deliver

- Hands-on prototypes/baselines (notebooks/scripts) for CV and generative workflows, built for reproducible iteration
- Method and architecture reviews: selecting viable approaches, clarifying assumptions/risks, defining an experiment roadmap
- Mentoring and technical guidance: deep learning for scientific research (PhD-level) + project guidance for interns/juniors (code + experiment reviews)

Primary focus

- **Controllable generation**. & editing (diffusion-based): spatial/reference conditioning; img2img/inpainting/inversion workflows
- Video CV: detection + tracking pipelines, evaluation pitfalls, and practical integration patterns
- Segmentation & multi-task learning: modern architectures, losses, mask processing, dataset/annotation nuances

Background (familiar topics)

- Deployment basics (Docker; general awareness of ONNX/TensorRT)
- LoRA / parameter-efficient tuning (conceptual + practical exposure)
- Depth estimation, VLM-based anomaly detection, data unlearning (study-level)

Primary tools: Python · PyTorch · Linux · Git · Docker · OpenCV · torchvision · Transformers · Diffusers · Hydra
Used as needed: Ultralytics YOLO · Stable Diffusion / Flux · ControlNet · ComfyUI · CLIP

Work format

Remote · contract / consulting · training / curriculum development.
English: B2 (Upper-Intermediate), spoken.
Contact: gan4x4@gmail.com.

Experience

2025 - present

Analyst

MIEM

Center for Software Development and Digital Services at the Moscow Institute of Electronics and Mathematics, HSE University

- Led a small applied AI team and evaluated controllable video generation methods for inpainting workflows.
- Researched controllable video generation models (inpainting, Wan, VACE)

2024 - 2025

Consultant

Samsung Research Russia

Samsung Research Russia — advanced industrial R&D organization within Samsung's global research network focused on applied AI research.

Led research and experiments on conditional image generation, focusing on inference-time optimization with models such as SD 3.5, FLUX and Qwen Image. Created a large-scale synthetic image dataset. Contributed as an inventor to two patent applications on controllable generation and quality assessment in generative image editing.

2023 - present

Instructor

WB Teach

Wildberries' educational initiative focused on training and internship programs for specialists in IT and business.

- Designed and delivered hands-on training in Computer Vision and generative imaging
- Authored and iterated learning modules spanning segmentation, video tracking, conditional generation, inpainting & inversion, LoRA/SVD fine-tuning, depth estimation, anomaly detection, and data unlearning.
- Developed internal automation for homework checking and question generation (LLMs).

2022 - 2024

Expert

MIEM

Tikhonov Moscow Institute of Electronics and Mathematics, School of Applied Mathematics

- Led student project teams delivering applied Computer Vision prototypes; defined milestones, reviewed experiments, and ensured reproducible baselines.
- Consulted on deep learning pipelines (data, training, evaluation) for video analytics and 3D vision tasks.

2020 - 2024

Lecturer

MSU

Faculty of Physics, M.V. Lomonosov Moscow State University

- Designed and taught a graduate course on neural networks for scientific research (PyTorch-based notebooks + assignments).
- Advised and assisted graduate students with machine learning research: problem formulation, baselines, and evaluation.

2020 - 2020

Computer Vision Software Engineer

LLC “Parus”

- Developed computer-vision models and integrated them into an inference pipeline for production use.
- Packaged and exported models for deployment (Docker, ONNX).

2019 - present

Senior lecturer

HSE.University

HSE University, Faculty of Computer Science / School of Software Engineering

- Ran a research seminar on Computer Vision Technology with hands-on labs (detection, tracking, segmentation, and modern generative vision).
- Maintained and updated materials annually; curated practical exercises and supporting readings.

2017 - 2020

Software developer

LLC "Housing and communal services Online"

- Developed an information disclosure system for managing organizations (backend features and integrations).
- Built REST APIs and data workflows (PHP/Laravel, MySQL); supported production maintenance.

2011 - 2016

Lecturer

HSE.University

HSE University, Business Computer Science Faculty / Department of Management and Software Development.

- Taught “Algorithms and Data Structures” and “Software Testing and Verification”.

2007 - 2012

Founder, CEO

LLC “4x4 Tourism”, Moscow

In addition to administrative work, I worked on web projects: www.4x4typ.ru, www.extremetyre.ru, www.4x4drive.ru.

1999 - 2007

Software developer

INT

Institute of New Technologies (INT), Moscow.

Worked on children's training environments in the “Pervo-Logo” family.

1997 - 1998

Software developer

"Corporation" UNO"

Created Windows applications and web interfaces based on Microsoft products.

Updated: 2026-11-11