Oleg Khomenko

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GitHub: https://github.com/olegkhomenko
Google Scholar: https://scholar.google.com/citations?user=4zny_MKORbAC

SUMMARY

- **CEO** (Generative AI Startup, 25+ people) @ neiro.ai
- Experienced in **Computer Vision** (Deep Learning), **Generative AI** and Mobile Apps
- **MSc** degree **in Data Science** (Skoltech)
- Can create products from scratch and build tech / non-tech teams to achieve results

EXPERIENCE

Neiro.ai — Apr. 2022 to **Present**, San Francisco, US / Tbilisi, GE
CEO • https://neiro.ai
- Developed AI-powered mobile applications generating over **$150,000 in monthly revenue** and surpassing **500,000 downloads**
- More than **1 500 000 000 views** on TikTok content generated with our techs
- Partnered with Adobe and Canva

Neiro.ai — Sep. 2020 to Apr. 2022, San Francisco, US / Tbilisi, GE
Team Lead (Computer Vision) • https://neiro.ai
- **Computer Vision. Deep Neural Networks and GANs**
- **Team Management (10 people)**
- Image & Video generation (img2img, vid2vid, img2vid)
- Detection, Segmentation & Classification
- Delivering and optimizing NNs for mobile devices (CoreML, TorchScript, Swift)
- 3D Graphics (GLSL, Meta, ARCore & ARKitl) for mobile devices

Samsung AI Center, Moscow — Jun. 2018 to Aug. 2020, Moscow, Russia
Leading Deep Learning Engineer • https://research.samsung.com/aicenter_moscow
Multimodal Data Analysis Lab, Deep Neural Networks for Computer Vision and GANs
- Image & Video generation (img2img, vid2vid, img2vid)
- Photorealistic Style Transfer
- Super Resolution
- **Discriminative models.** Video classification, segmentation, etc.

General Electric Co — Jun. 2017 to June 2018, Moscow, Russia
Digital Technology Leadership Program / Solution Architect • https://www.ge.com
- **Web services for Predix cloud platform by GE Digital (see Cloud Foundry, Open Source)**
- Machine Learning / Data Analytics microservices & Software Development
- Project Management Execution & Architecture Strategy for microservices

LLC “DATADVANCE” — Mar. 2017 to Jun. 2017, Moscow, Russia
Research Intern • https://www.datadvance.net/
- **Model development for predictive maintenance (Airbus A319)**
- Outliers and anomaly detection in time-series (SVMs, ARIMA, GBM, etc.)
- Exploratory Data Analysis, Raw flight data preprocessing, and Hypothesis testing

JSC “ALFA-BANK” — Jun. 2016 to Jun 2017, Moscow, Russia
Data Analyst • https://potok.digital
- **Credit risk model development and implementation for P2B lending platform**
- Developed REST API for credit scoring model
- Implemented Deployment pipeline with Docker images & containers
- Collecting, processing, and analyzing transactional data (Python, Pandas, Numpy)

EDUCATION

Skolkovo Institute of Science and Technology — Aug. 2015 to Jun. 2017, Moscow, Russia
M.S. *Data Science* — (*Mathematics and Computer Science*)

National Research Tomsk Polytechnic University — Sep. 2010 to Jun. 2014, Tomsk, Russia
B.S. *Information Systems and Technology*

TECHNICAL SKILLS

Python
- **Deep learning.** PyTorch, PyTorch Lightning, TensorFlow
- **Traditional Computer Vision:** OpenCV, skimage
- **Machine learning.** scikit-learn, LightGBM
- **Visualization.** matplotlib.pyplot, plotly
- **Data Analysis, Preprocessing.** pandas ;), NLTK
- **Math.** numpy, cvxopt
- **Web, REST.** FastAPI, Flask, jinja2

Mobile
- Swift, OpenGL (GLSL), Metal

Not Python
- **DBMS.** PostgreSQL, ClickHouse, MongoDB
- **DevOps & Workflow.** Docker, Redis, Airflow, Nginx, Bash, CloudFoundry, Git, *nix OS
- **Web.** React

PAPERS AND PATENTS **(For more, please see Google Scholar)**

Method of on-device generation and supplying wallpaper stream and computing device implementing the same (Patent, WO2022075533A1) 2022
R. Suvorov, E. Logacheva, V. Lempitsky, A. Mashikhin, O. Khomenko
https://patents.google.com/patent/WO2022075533A1/

Joint unsupervised object segmentation and inpainting (Patent, WO2020101246A1) 2020
P. Ostyakov, R. Suvorov, E. Logacheva, O. Khomenko, S. Nikolenko
https://patents.google.com/patent/WO2020101246A1

The Impact of Intervention-Related Risk Factors on the Risk of Ventilator-Associated Pneumonia Is High in a Neurosurgical Intensive Care Unit. 2020
Ershova, K., Khomenko, O., Ershova, O., Savin, I., Kurdumova, N., Danilov, G. and Shifrin, M., 2020.
Infection Control & Hospital Epidemiology, 41(S1), pp.s407-s409.
https://www.cambridge.org/core/journals/infection-control-and-hospital-epidemiology

DeepLandscape: Adversarial Modeling of Landscape Videos 2020
Elizaveta Logacheva, Roman Suvorov, Oleg Khomenko, Anton Mashikhin, Victor Lempitsky (2020).
In Proceedings of the European Conference on Computer Vision (ECCV).
https://saic-mdal.github.io/deep-landscape/
https://www.ecva.net/papers/eccv_2020/papers_ECCV/papers/123680256.pdf

The Kaplan-Meier Model Overestimates The Probability Of Healthcare-Associated Infections In ICU Patients 2020
Ksenia Ershova, Martin Wolkewitz, Oleg Khomenko, Olga Ershova, Vladimir Zelman
Abstract @ IARS, AUA & SOCCA 2020 Annual Meetings in San Francisco
https://archive.aievolution.com/2020/ars2001/index.cfm?do=abs.viewAbs&abs=4404

YouTube-8M, (Kaggle competition, 2nd place) 2018
Label Denoising with Large Ensembles of Heterogeneous Neural Networks
Ostyakov, P., Logacheva, E., Suvorov, R., Aliev, V., Sterkin, G., Khomenko, O., & Nikolenko, S. I. (2018).
In Proceedings of the European Conference on Computer Vision (ECCV).
https://arxiv.org/abs/1809.04403

SEIGAN: Towards Compositional Image Generation by 2018
Simultaneously Learning to Segment, Enhance, and Inpaint
Ostyakov, P., Suvorov, R., Logacheva, E., Khomenko, O., & Nikolenko, S. I. (2018).
https://arxiv.org/abs/1811.07630

Healthcare-associated ventriculitis and meningitis in a neuro-ICU: Incidence and risk factors selected by machine learning approach. 2018
Savin, I., Ershova, K., Khomenko, O., Danilov, G., ... & Zelman, V. (2018). Journal of critical care, 45, 95-104.
https://doi.org/10.1016/j.jcrc.2018.01.022

ADDITIONAL INFORMATION

Languages: English, Russian
Sports: Skateboarding, Gym, Running, Yoga, Surfing