+7(937) 071-04-24
Russia, Moscow
makoyan2001@gmail.com
linkedin.com/in/makartkar0

Artem Makoyan

Languages: Python3, C++, C, Go
github.com/MakArtKar
codeforces.com/profile/MakArtKar
leetcode.com/MakArtKar

EDUCATION

Bachelor in Computer Science, GPA 8.68/10, *Higher School of Economics, Moscow, Russia*   Sep 2019 — Jun 2024
Applied Mathematics and Information Science

- Algebra
- Algorithms and Data Structures
- Probability Theory and Statistics
- Discrete Mathematics
- Linear Algebra and Geometry
- Operating Systems
- Logic
- Matrix Computations
- Optimization in ML
- Calculus
- NLP

Master's Equivalent, *Yandex School of Data Analysis, Data Science, Russia*   Sep 2020 — May 2022

- Machine Learning
- Deep Learning
- Deep Vision and Graphics
- Computer Vision
- 3D Computer Vision
- Natural Language
- Processing
- Generative Models
- Reinforcement Learning
- Bayes Methods in ML
- Python
- C++

Bachelor, Applied Computer Science (Eng), GPA 84.69/100, *Neapolis University of Pafos, Paphos, Cyprus*   Jan 2023 — Jun 2024
Applied Computer Science

- Innovation and Entrepreneurship
- Software Project Management
- Technical Entrepreneurship
- Interest based communications
- Introduction to Business
- Principles of Cybersecurity
- Advanced Databases Concepts
- Advanced Computer Networks
- Distributed Systems

TECHNICAL EXPERIENCE

Middle ML Engineer/ Geo services   Jun 2023 — **Present**
Yandex   *Python 3, PyTorch, Hydra*

→Automatic maps markup. Road and road elements segmentation from aerophotos.
→News parsing and analysis for map's changes deection.

Middle ML Engineer/ Computer Vision Platform   Jul 2022 — Jun 2023
Sber Devices   *Python 3, C++, PyTorch, Hydra, DVC, OpenCV, ONNX, torch_pruning*

→Background removal for video conferencing. Improved metrics (0.98 dice) and visual quality, 1.5x speed up after pruning.
→Pay card localization. Trained 700KB model for card segmentation. Developed C++ inference pipeline.

ML Developer intern / VR Team with V. Lempitsky   Jul 2021 — Oct 2021
Yandex   *Python 3, PyTorch, Tensorboard*

→VR scene quality improving by predicting human alpha mask. Researched papers and improved FBA Matting.

ML Research Intern / Mobile Authentication   Nov 2020 — June 2021
Samsung R&D Department   *Python 3, PyTorch, Bash, Numpy, Pandas, Sklearn, Tslearn*

→Worked on a ML pipeline for mobile phone authentication by user's motion patterns with $82.2\% \pm 9\%$ accuracy - paper.

Software Engineer Intern / Software performance engineering team   Aug 2020 — Oct 2020
Huawei   *C, Octave, Catch2*

→Worked on a framework for faster developing open-source 5G wireless library by developing a testing platform on C and Octave

PROJECTS

Telegram LLM QA bot   Jun 2023 — Aug 2023
→Developed tg bot to answer on questions from the chat context   *Python 3, LangChain, HuggingFace, aiogram*
- Researched different LLM models, developed different types of LangChain pipeline (stuff, rerank, map reduce, refine) with them.

Automatic Detection of Means of Transportation on 3d Cargo Models   Dec 2021 — June 2022
→Developed model for cloud segmentation with 0.95 IoU for cargo   *Python 3, Pytorch, PyTorch3D*
- Calibrated cameras for cargo scanning, prepared data, implemented ESANet model

Automatic computer activity monitoring   Aug 2020 — Sep 2020
→Developed Windows application allowing automatic employee performance monitoring and analysing   *C++, GRPC, ProtoBuf*
- Implemented on C++ using grpc and protobuf for data transfer, access to information by WinAPI

COMPETITIONS

- **Top 8%** in Google Hash Code. **Top 50** in Google Kick Start. **Top 350 (top 0.8%)** in Google Code Jam   Feb, May, June 2020
- Awards in All-Russian Olympiad: 33rd place in **Informatics** and 8th place in **Maths** over 20000 participants   Apr 2018, 2019

SKILLS

Libraries	Pytorch, Hydra, DVC, WandB, OpenCV, Sklearn, Numpy, Pandas, Scipy, ONNX, Matplotlib, Optuna
Tools	SQL, Linux, Bash, Git, LaTeX, MarkDown