Scientific career in VL and where to find it

Artem Babenko, Yandex Research

Scientific career: Why?

- → Challenge and interest
- \rightarrow Freedom
- \rightarrow No pressure of instant results
- \rightarrow Worldwide impact
- \rightarrow Public visibility



ML Research these days:

- \rightarrow Research is a team work
- \rightarrow Industry has more possibilities than academy
- \rightarrow Huge flow of new papers/results/etc.

ML Research: Industry vs Academy

- \rightarrow More data
- \rightarrow More computation

→ Source of inspiration: new ideas/settings/problems

ML Research: How to enter?

- \rightarrow Join a strong lab with aligned research interests
- \rightarrow Full-time commitment
- → More various projects/internships/collaborators

Yandex Research

- \rightarrow Scientific part of Yandex
- \rightarrow KPI: high-impact ML/AI papers and influence on business \rightarrow In the top-20 industrial ML labs in the world (Dec.2023)

Publications

Akim Kotelnikov 12 Dmitry

2023: 4 (ICLR) + 4 (ICML) + 1 (ICCV) + 8 (NeurIPS)

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= 17 (Total)

GRADIENT BOOSTING PERFORMS GAUSSIAN PROCESS INFERENCE TabDDPNI: Modelling Tabular N Aleksei Ustimenko* research@aleksei.uk Liudmila Prokhorenkova stroumova-lagyandex.com Artem Beliakov Yandex Research, HSE University iannes van verseine belyakov.arteom2015@gmail.com

DEDRIFT: Robust Similarity Search under Content Drift

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Research directions

(1) Generative Models

(2) Tabular DL

(3) Graph ML

(4) Efficient DL

Our research in business

(1) Core technology in Shedevrum [Generative Models]

(2) Antifraud detection in UGC [Graph ML]

Α 3

International collaborations

Stanford

Berkeley



Microsoft 🔅 Pinecone

Carnegie Mellon TOGETHER

Institute of Science and Technology Austria



Meta





Citations per author, 2010 to 2023

Mean citations per author per year



Mean unique authors from organization per year (2010 to 2023)



Shedevrum: Top-3 in ML apps

Top Performers by Mobile Performance Score

Mobile Performance Score is the industry's first mobile scoring system that's like a credit score, but for apps. Get an executive overview on desktop or on the <u>Pulse iOS app</u>.

Track Trending apps by their MPS within your genre:





Yandex Research ML Residency

(1) Entry-level program for start in ML research career

(3) In 2023 residents were offered permanent positions in Yandex Research / OpenAl / DeepMind

(2) 9 (out of 17) papers in 2023 include residents' participation

Yandex Research ML Residency

(1) Fully devoted to full-time research

(2) Academic supervision from senior Yandex scientists

(3) Cutting-edge research problems

(4) Money/hardware/workspace/food

What we expect

(2) Desire to design and execute on research agenda

(3) Programming skills sufficient to conduct experiments

(4) Basic knowledge in Al-related areas

(1) Strong technical education, especially in math/algorithms

