VLAD KUTUZOV

**ML engineer**

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# EXPERIENCE

## ML/C++-developer

### Yandex, Geosearch quality team

 July 2023 - Present time Moscow

* Reduced the number of empty search results in Kazakhstan by 11% without a drop in other geosearch metrics
* Increased the geowizard’s integral surplus by 5% in Kazakhstan
* Fixed big windows on rubric search queries in Dubai
* Created new L2 geosearch ranking formula which improved in-window recall in Dubai from 0.69 to 0.83

## Analyst

### Yandex, Taxi safety team

 January 2023 - July 2023 Moscow

* Created algorithm for road accidents identiﬁcation with 0.8 ROC-AUC instead of 0.75 ROC-AUC of previous model

## Researcher

### Huawei Moscow Research Center, Math Modelling Lab

 August 2022 - June 2023 Moscow

* Created algorithm for WiFi sensing scenarios identiﬁcation with 0.99 f1 for NLOS class and > 0.9 f1 for dynamic and station mobility classes

## Data Scientist

### Demis Group

 June 2021 - December 2021 Moscow

* Developed a generator of search engine-relevant headers for websites based on GPT-3 and an evolutionary algorithm
* Developed an algorithm for searching for words that improve or decrease the site’s position in search engines

# ACHIEVEMENTS



* Digital pharmacology hack, solo ﬁrst place
* Moscow Math Olympiad, 3rd place
* Placed in top 11% in Feedback Prize Kaggle Competition
* Won three "Skills of the future" hackathons in a row
* Digital League AI Challenge, Army 2021 forum, third place
* Robomasters Youth Championship, winner of the All-Russian stage

# PAPERS

* [Implicitly normalized forecaster with clipping for linear and non-linear](https://arxiv.org/abs/2305.06743) [heavy-tailed multi-armed bandits, May 2023](https://arxiv.org/abs/2305.06743)
* [Breaking the Heavy-Tailed Noise Barrier in Stochastic Optimization](https://arxiv.org/abs/2311.04161) [Problems, November 2023](https://arxiv.org/abs/2311.04161)

# EDUCATION

## Bachelor’s degree in Applied Math & Computer Science

### Moscow Institute of Physics and Technology

 August 2021 – May 2025

Neuroscience Summer School **Institute of Theoretical and Experimental Biophysics**

 August 2022, August 2023

* Programmed mathematical models of brain neural networks activity
* Analyzed brain activity data to conﬁrm existing neuroscience hypotheses

## Scientiﬁc and practical intensive on reproduction of state-of-the-art scientiﬁc results

### Sirius University, Yandex

 October 2023

* Conducted experiments with new methods for decentralized non-smooth optimization

# SIDE PROJECTS

## Zero-shot recommendation system

### Ama Ready Startup

 October 2020 - January 2021

* Developed zero-shot recommendation system based on variational autoencoder and pseudorandom graph.
* Participated in the development of a Facebook bot

## Bioinformatics project

### Novel Software Systems

 November 2021 Remote

* Developed an algorithm for amino-acids embeddings aggregation

