Aleksandr Naumtsev

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EDUCATION

- **Saint-Petersburg State University | Mathematics and Computer Sciences department** *St. Petersburg, Russia*
  Mathematics, Algorithms and Data Analysis | Bachelor's degree | GPA 4.47 out of 5   Sep 2020 - Jul 2024

- **Yandex | School of Data Analysis**
  Data Science   Sep 2023 - Jun 2025

  Relevant cources:
  - **Math:** Probability Theory, Mathematical Statistics, Machine Learning, Theoretical Computer Science, Linear Algebra, Discrete Mathematics, Differential equations, Bayesian inference
  - **Programming:** Algorithms and Data Structures, ⊙ Databases, Operating Systems, Computer networks, C/C++, OOP, Python, Linux, Operating systems
  - **Other:** RecSys, Deep Learning, NLP, RL, Computer Vision, Heuristic search, Convex analysis and optimization

WORK EXPERIENCE

- **Yandex** | Generative advertising departments | ML engineer   *July - ... 2024*
  - *Automatic compilation of the most relevant ads*

- ***Diginetica*** | *Search and recommendations in ecom | Data scientist*   *February - July 2024*
  - *Generating synonyms to improve search*
  - *Creation and adoption of new recommendation strategies*

- ***Yandex*** | *Ecom's product analytics group | Intern analyst*   *June - September 2023*
  - *Generating and testing product hypotheses, improving e-commerce sourcing*
  - *Unloading, drawing of graphs by ecom slices. Explanation of critical changes in metrics.*
  - *Collection and markup of ecom queries for surplus validation*
  - *Implementation of control system for eliminated/large tables in the internal database*

- *ODDSCORP.com | Strategy Analyst*   *June - Aug 2022*
  - *Strategy development and analysis*

PROJECTS

- ⊙ **Course feedback ranking system | Python, Aiogram, MySQL, OpenAI**   *Sep 2023*
  Collecting feedback on university courses and ranking by preference

  - Implementation of asynchronous bot
  - Ranking of courses by student preference
  - Generation of tags describing the course
  - Microservice architecture: bot, database, ranking system

- ♫ **Glinka music | Python, torch, midi2audio**   *Aug 2023 -*
  Transformer-based music generation and stylization

  - Work with Music Transformer 🗃
  - Enhanced music segmentation and harmony extraction algorithms
  - Research on adding additional features

- ⊙ **D* lite vs LSS-LRTA* | Python, Pygame, Matplotlib**   *Nov 2022*
  Finding the shortest path in a dynamic environment

  - Implementation and analysis of search algorithms from articles
  - Visualization of their work
  - Testing and comparing results for different metrics

- ⊙ **AgarIoRU | Python, Socket, PyGame**   *Aug 2022*
  Popular multiplayer survival simulation game

  - Clients-server architecture
  - Efficient data transfer over the network

- ⊙ **Protocol Detection Bot | OpenCV, Pytesseract, Telebot, GoogleApiclient, Oauth2client**   *May 2022*
  Parsing and decoding the results of the Olympiad from paper

  - Parsing a table into individual cells
  - Number and word recognition

– Telegram bot by picture sends results on google sheets

- **3D CV | Python, CV2, Numpy**   *Jan 2022*
Finding your Location by Video

  – Recognizing "corners"
  – Making tracks of special points on different photos
  – Calculating camera position changes

- **Data Advanced Structures | C, C++**   *March 2022*
Huffman, Linq, Smart pointers, BMP

ACHIEVEMENTS AND CERTIFICATES

- Winner of the student olympiad "I am a Professional" in mathematics   *June 2024*
- Prize-winner of the student olympiad "I am a Professional" on artificial intelligence   *June 2024*
- Prize-winner of the student olympiad "Higher Sample" on data analysis and AI   *June 2024*
- Second-place in Data Analysis Contest by St. Petersburg State University and Yandex   *March 2023*
- Master Candidate on codeforses
- Tinkoff Fellow for the Analytics track   *Sept 2023 - June 2024*
- First-Degree diploma in programming at the Lomonosov Olympiad   *Sept 2020*
- Second-Degree diploma in mathematics at the Moscow School Olympiad   *Feb 2020*
- Name scholarship of the Government of St. Petersburg in the field of information
  technologies from the Committee for Science and Higher Education.   *2020 - 2021*

SKILLS SUMMARY

Languages: Python, C/C++, SQL, [Basic: HTML, CSS, JS]
Python dev: socket, pytest, asyncio, Flask, aiogram, aiohttp, pygame, bs4, pyTelegramBot, requests
Python: jupyter, torch, numpy, pandas, matplotlib, seaborn, scipy, sklearn, cvxpy, catboost, openai
Databases: YQL, PostgreSQL, MongoDB
Developer Tools: Git, Docker/Docker-compose
Other: Datalens, Nirvana, MapReduce, bash, tmux, valgrind, gdb

SOCIAL IMPACT

- Teaching mathematics:
Work as a camp instructor, checking olympiad papers and conducting intensives