Aliaksandr Melnichenka

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SUMMARY

I am an amateur in physics, programming, cycling, karate, and guitar. For the past five years, I have dedicated myself to preparing for various levels of physics olympiads, from school competitions to the International Physics Olympiad. Alongside my physics studies, I have been learning the basics of web design. Living in Mazyr limited my academic opportunities, which motivated me to work on projects that aim to make physics education more accessible.

EDUCATION

Lyceum of Belarusian State University, High School Diploma   *September 2022 - May 2024*
Academic Focus: Specialized in Physics. GPA: 9.6/10. The curriculum included advanced coursework in Physics, Math, and Computer Science. Actively participated in National Physics Olympiad(BelPhO) and Young Physics Tournaments.

ACHIEVEMENTS AND AWARDS

- Ranked among the top 10 physics students in Belarus through the Belarusian Physics Olympiad. Selected as the first reserve for the national team in the International Physics Olympiad (IPhO) selection, placing 6th overall.
- 3-time medalist in Belarusian National Physics Olympiad (Gold: 2022. Silver: 2024. Bronze: 2023.).
- Youngest member of the national team for the International Young Physicists Tournament (IYPT); Two-time finalist and team's captain at the Belarusian Young Physicists Tournament.
- Presidential Award for Support of Gifted Youth

LEADERSHIP EXPERIENCE

Solutions to Savchenko Problems in Physics   *October 2023 - Present*
Founder of non-profit startup, savchenkosolutions.com

- Founded the pioneering peer-to-peer student-led non-profit with 25k+ active users, providing solutions to Savchenko Problems in Physics and democratizing access to advanced physics education
- Led a diverse, international team of over 10+ contributors, from high school students to university professors, collaboratively publishing 700+ original solutions in Russian and English.
- Recognized as the only pinned resource in the physics section of Beyond Curriculum, Russia's most popular Olympiad forum.
- Achieved 50k pageviews and 12k unique visitors per month, cementing the platform's role in the physics education community.

Belarusian Physics Olympiad Website   *September 2023 - Present*
Project leader, Editor, Designer, belpho.org

- Coordinated the launch of the largest dataset of belarusian physics olympiads for the last 35 years, designed to help enhance skills of problem-solving for belarusian students, and preparing for regional and national olimpiad's stages;
- Recognized as the official contact for the Republic of Belarus (BLR) in the International Physics Olympiad (IPhO) countries list.
- Collaborated with distinguished BelPhO representatives, including Dr. L.G. Markovich and Prof. A.I. Slabadzyanuk (BelPhO President).
- According to Yandex, the top resource for Science Olympiads preparation in Belarus, 90% members of national physics team have used our platform

PROFESSIONAL EXPERIENCE

IPhO unofficial database   *January 2024 - February 2024*
Contibutor, ipho-unofficial.org

- Collaborated with Abdurrahman Akkas on his International Physics Olympiads project;
- Added some content and fixed some bags by uploading to the GitHub page.

Open source developer   *August 2020 - Present*
Software developer, GitHub

- Bike computer based on Arduino and Hall Sensor; published on the Official Arduino Facebook channel
- Python library to download audio pronunciations from the Cambridge Dictionary;
- Telegram bot for remote lighting control of LED strip, based on ESP8266 microcontroller;
- Physical simulation of the Magnetic Gear model; presented on the Belarusian Young Physics Tournament

SKILLS

- **Languages:** Python, C++, LaTeX, HTML, CSS.
- **Natural Languages:** English (fluent), Russian (native), Belarussian(native)
- **Scientific Software:** Mathematica, Matplotlib, NumPy.
- **Tools:** Photoshop, Inkspace, Git, GitHub, Word, Excel, PowerPoint.
- **Additional Skills:** Web Scraping (BeautifulSoup, Requests, Selenium); String Manipulation (Regular Expressions in Python).