

# Dmytro Zakharov

[zamdmytro@gmail.com](mailto:zamdmytro@gmail.com) | [zakharov.netlify.app](https://zakharov.netlify.app) | [linkedin/zamdimon](https://linkedin.com/in/zamdimon) | [github/ZamDimon](https://github.com/ZamDimon)

## EDUCATION

### Karazin Kharkiv National University

Kharkiv, Ukraine | Sep 2021 – May 2025

#### 3RD-YEAR STUDENT, APPLIED MATHEMATICS MAJOR

- Consistently ranked **top-1-top-3** among students majoring in Applied Mathematics (GPA: **95/100**).
- Rewarded *Meritorious Award* at team differential equation contest *SCUDEM* with more than 1000 participants.

### Kharkiv Physics and Mathematics Lyceum No. 27

Kharkiv, Ukraine | Sep 2014 – May 2021

#### STUDENT

- Ranked **top-1** out of 60 students at **top-6** Ukrainian school (GPA: **11.8/12**, average National Exam Score: **198.5/200**).
- Awarded with 2 most prestigious high school scholarships — **President of Ukraine Scholarship** for one of the highest National Exam Score (about 200 students awarded nationally) and **President of Ukraine Scholarship** for the first place on the national research competition (about 100 students awarded nationally).

## LANGUAGES AND TESTING

- English Language: C1-C2.** Has taken **TOEFL** with the total score of **113** (Reading – **28**, Listening – **29**, Speaking – **27**, Writing – **29**) and **SAT** with total score of **1500** (Mathematics – **800**, English – **700**).
- German Language: B2.** Took classes in the **Nürnberger Haus** — official partner of the **Goethe Institute**.
- Ukrainian and Russian Languages:** Native.

## WORK EXPERIENCE

### DISTRIBUTED LAB | MIDDLE BACKEND DEVELOPER

Kharkiv/Kyiv, Ukraine | Nov 2021 - now

- Worked in one of the most advanced **blockchain** expertise center in Europe.
- Worked with **cryptocurrency** and **smart contracts** on **Solidity**.
- Developed microservices using **Golang** language with **PostgreSQL** for managing databases and **Redis** as a **NoSQL** database.
- Developed backend service for the IGO crowdfunding, backend for a decentralized marketplace (*MoonRabbit*) statistics processing, piece of cross-chain bridge functionality on the **Pact** programming language, document aggregator service that downloads and sorts all account transactions and operations on the private blockchain regardless of timeframe specified (using **AWS SQS** and **AWS S3**), open-source tokenized books store project (as a backend team reviewer).
- Currently working on a backend notifications service for a DAO platform featuring integration with *Telegram*, *Discord*, *Slack*, emails, and web pushes, and KYC with deposits/withdrawals integration service for an investing platform.

### UKRAINE GLOBAL SCHOLARS | FINALIST '21, MATH TEST CREATION TEAM LEAD

Ukraine | Jun 2021 - now

- Selected as a scholar at **Ukraine Global Scholars**, a **501(c)3** run by Ukrainian alumni of US universities that provides academic and professional guidance (**acceptance rate: 5-7%**).
- Composing problems for the Mathematics test used to select best candidates during the selection process to the Ukraine Global Scholars.

## ACHIEVEMENTS

### INTERNATIONAL ZHAUTYKOV PHYSICS OLYMPIAD | BRONZE MEDAL

Kazakhstan | Jan 2021

Awarded **Bronze Medal** at international Physics Olympiad with **20+** participating countries; **3rd place** among 18 representatives from Ukraine.

### INTERNATIONAL RESEARCH COMPETITION I-FEST | SILVER MEDAL


Tunisia | Nov 2021


Awarded **Silver Medal** at international research competition (40 participating countries with 1000+ participants).  
Presented research in **Computational Physics**.

**EUROPEAN UNION CONTEST FOR YOUNG SCIENTISTS** | UKRAINE REPRESENTATIVE Spain | Sep 2021  
Represented **Ukraine** (only **top-2** projects are selected nationally) on the biggest European scientific research defense contest with 40+ participating countries.

**SAHASAK NIMAVUM 2021** | SILVER MEDAL Sri Lanka | Nov 2021  
Awarded **Silver medal** at international research competition held in **Sri Lanka**.

## PROJECTS

**COMPUTATIONAL PHYSICS RESEARCH**  APPLIED MATHEMATICS, PHYSICS, COMPUTER MODELLING, C#  
Conducted **Computational Physics** research “**Simulation of light propagation in an optically inhomogeneous medium**” which has numerous applications from constructing optical devices to studying mirages.

**GAME OF LIFE**  RUST, BEVY, GAME DEVELOPMENT  
Project implemented using *Rust* on a *Bevy* game engine which I used for learning both. Implements a basic Conway’s Game of Life and more complicated cellular automata rules.

**INSIDE THE DARK**  TEAM WORK, C#, UNITY, GAME DEVELOPMENT  
Created a team of 4 people and developed a dungeon-crawler game about exploring a random-generated dungeon. First playable version for the national IT contest **ITalent** was made in **under 2 months**.

**ISING MODEL**  COMPUTER MODELLING, C#, PYTHON, PHYSICS  
Implemented the **Ising model** together with **MIT** student Serhii Kryhin. Initially written on Python, later made a visual shell for the project on the Unity engine (C#).

## SKILLS

**Programming Languages:** proficient in Golang, Python (Tensorflow, Numpy, Scipy etc.), C#, know basics of C++, Rust, C.

**Frontend:** Basic knowledge of HTML, CSS, Sass.

**Technology:** PostgreSQL, Redis, AWS S3 and SQS, Docker, docker-compose, Postman, Wolfram Mathematics, Bevy,  $\text{\LaTeX}$ , Git (both Github and Gitlab, basics of CI), Unity.