# Yusif Mehdiyev

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O JosephMehdiyev in Yusif Mehdiyev

Azerbaijan, Baku

#### **EDUCATION**

ADA University

2024 - Present

Baku, Azerbaijan

Major GPA: 4.0/4.0

• Rector's List of Honor

· Lotfi A. Zadeh List of Honor

• IELTS: 7.5 (8.5/8.5/6.5/6)

Bachelor of Science in Mathematics

• Full List of Coursework and Self Study at https://josephmehdiyev.org/about/coursework.pdf

## Complete Secondary School Number 12

2013 - 2024

General Secondary Education

Baku, Azerbaijan

o CGPA: 4.97/5.00

∘ SAT: 1500/1600 (790 M,710 W/R)

∘ 11th grade DIM National Exam: 282/300

9th grade National Exam: 263/300

9th grade Honor's Certificate

#### EXPERIENCE

## Teaching Assistant in ADA university

February 2025 - Since

Baku, Azerbaijan

Teaching Assistant in Linear Algebra

- Helping faculty with a large lecture class by teaching students in recitation, laboratory, or discussion sessions,
- Assisting with grading homework or exams, proctoring exams, tutoring, offering office hour assistance to students, and performing clerical tasks associated with course instruction.

### **PROJECTS**

## • Cormat: 3D math software for visualizing mathematical functions from scratch

March 2024 - Present

Tools: C++, Cmake, OpenGl, GLFW, ImGui, GLSL shaders

• Developed a 3D math visualization tool from scratch using C++ and OpenGL, enabling users to plot and interact with mathematical functions.

- Implemented Linear Algebra transformations (e.g., translation, rotation, scaling) to manipulate 3D objects and camera perspectives programmatically.
- Designed and structured the project using Object-Oriented Programming (OOP) principles for modularity, scalability, and maintainability.
- Built and managed the project with CMake for organization.

#### SKILLS

- Mathematical Knowledge: Vector Calculus, Linear Algebra, Elementary Graph Theory, Elementary Number Theory, Probability and Statistics, Real Analysis, Group Theory
- **Programming Languages:** C, C++, Python, R, Lua
- Database Systems: PostgreSQL
- DevOps & Version Control: Git, Cmake, Docker
- Language Knowledge: Azerbaijani (Native), Turkish (C1), English (C1; IELTS 7.5), French (B1)
- Other Tools & Technologies: Latex, Linux (arch and debian based), Microsoft Excel, RStudio, Vim/Neovim, Tableau

## CONTESTS, AWARDS AND OTHER ACTIVITIES

## • CodeForces Competitive Programming Contests

Practicing Competitive Programming skills periodically

May 2024 - Present



- Actively learning and implementing algorithm concepts and data structures (e.g., dynamic programming, graph algorithms, trees, heaps) to solve problems efficiently and competitively.
- Practicing competitive programming techniques to improve problem-solving speed, optimize code performance, and write clean, efficient solutions.

# • Azerbaijan Olympiads blogger

April 2022 - September 2022

Art of Problem Solving Forum



 Archived Azerbaijan olympiad TSTST, TST and other problems for various national and international olympiads such as Azerbaijan Senior National Olympiad, Juniors'and Seniors' Balkan Mathmetical Olympiad and International Mathematics Olympiad.

# Azerbaijan Juniors' Mathematics Camp Participant

September 2021 - June 2022

Azerbaijan olympiad camp for training invidiauls for famous mathematical olympiads such as IMO, BMO, and JBMO

- Collaborated with peers to solve challenging mathematical problems
- Participated in intensive training sessions, improving problem-solving strategies and critical thinking abilities

## • Azerbaijan Mathematics Team Selection Tests Participant

September 2021 - June 2022

Azerbaijan TST for famous mathematical olympiads such as IMO, BMO, and JBMO

Participated in TST of Azerbaijani team