Yusif Mehdiyev

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 JosephMehdiyev Joseph Mehdiyev

Azerbaijan, Baku

EDUCATION

- **ADA University** — *2024 - Present*
  Bachelor of Science in Mathematics — Baku, Azerbaijan
  ◦ 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)

- **Complete Secondary School Number 12** — *2013 - 2024*
  General Secondary Education — Baku, Azerbaijan
  ◦ 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*
  Teaching Assistant in Linear Algebra — Baku, Azerbaijan
  ◦ 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.

PUBLICATIONS

- **Probability and Statistics notes** — *March 2024 - Present*
  Personal notebook in a style of a book for personal purposes
  ◦ Compiled a comprehensive personal notebook covering Probability Theory, Statistical Inference, and Statistical Models.
  ◦ Explored key concepts such as probability distributions, hypothesis testing, regression analysis, and Bayesian inference, alongside their mathematical foundations.

- **Real Analysis notes** — *September 2024 - Present*
  Personal notebook in a style of a book for personal purposes
  ◦ Created a detailed personal notebook on Real Analysis, covering core topics of the field.
  ◦ Practiced proof-writing techniques to strengthen understanding of abstract concepts and improve problem-solving skills in advanced mathematics.
  ◦ Organized content in a book-like format for personal reference, emphasizing clarity, depth, and accessibility for future review and application.

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, Tableu

CONTESTS, AWARDS AND OTHER ACTIVITIES

- **CodeForces Competitive Programming Contests** *May 2024 - Present*

  Practicing Competitive Programming skills periodically

  ◦ 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