Yusif Mehdiyev

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 JosephMehdiyev   Joseph Mehdiyev

Azerbaijan, Baku

EDUCATION

• **ADA University**   *2024 - Present*
Bachelor of Science in Mathematics   Baku, Azerbaijan
  ◦ Rector's 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 National Exam: 282/300
  ◦ 9th grade National Exam: 263/300
  ◦ 9th grade Honors Certificate

PROJECTS

• **Cormat: 3D math software for visualizing mathematical functions from scratch**   *March 2024 - Present*
Tools: C++, Cmake, OpenGl, GLFW, ImGui, GLSL shaders
  ◦ Developed OpenGL pipeline system to render the mathematical graphs
  ◦ Implemented various algorithms and data structures for various purposes
  ◦ Implemented Object Oriented Programming structure to organize the project
  ◦ Planning to use advanced mathematical skills to optimize the rendering and improve the aesthetical quality of the project

PUBLICATIONS

• **Probability and Statistics notes**   *March 2024 - Present*
Personal notebook in a style of a book for personal purposes
  ◦ Talks about Probability Theory, Statistical Inference and its methods, various Statistical models, Simulations and Math behind Machine learning.
  ◦ Planning to include coding examples in Python libraries such as pytorch, scikit-learn, scipy and R using tidyverse packages.

• **Real Analysis notes**   *September 2024 - Present*
Personal notebook in a style of a book for personal purposes
  ◦ Includes notes about core topics of real analysis: completeness of reals, sequences, limits, derivatives, integrals.
  ◦ Wrote proofs to selected exercises, and practiced proof writing style and techniques.

SKILLS

• **Mathematical Knowledge:** Pre-Calculus, Calculus, Linear Algebra, Elementary Graph Theory, Elementary Number Theory, Probability and Statistics, Real Analysis

• **Programming Languages:** C, C++, Python, R, Lua

• **Database Systems:** PostgreSQL

• **Data Science & Machine Learning (beginner):** R tidyverse packages, python libraries: pytorch, scikit-learn, scipy, matplotlib, pandas, scipy, beautifulsoup4

• **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

Contests, Awards and other Activities

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

  Practicing Competitive Programming skills periodically 🌐

  ◦ Currently learning new algorithm concepts and and data structures and implementing them in a quick manner competitively.

- **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.

  ◦ Discussed about the hard questions and their solutions.

- **Azerbaijan Mathematical Selection Tests Participant** *September 2021 - June 2022*

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

  ◦ Developed complex analytical and mathematical skills

  ◦ Used mathematical proof techniques such as proof by contradiction, induction and construction

  ◦ Learned and understood tricky Combinatorics and Number Theory theorems

- **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

  ◦ Mastered proper mathematical proof skills.

- **"World Star" Gold Award Winner** *Finals 2021-2022*

  Thailand International Mathematical Olympiad 🌐

- **Gold Award Winner** *2021-2022*

  Singapore and Asian Schools Math Olympiad 🌐

References

1. **Kamala Omarova**
   Graduate student at UoW, Academic Advisor at ADA university
   University Of Washington
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