Yusif Mehdiyev

+994555418363 | yusifmehdiyev55@gmail.com | ymehdiyev22216@ada.edu.az | josephmehdiyev.org

 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** *:*

Thailand International Mathematical Olympiad Finals 2021-2022

• **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
   Email: kamalo@uw.edu
   Phone: +994 50 550 12 56
   Relationship: Advisor, English teacher

2. **Javanshir Azizov**
   Asistant Professor
   ADA university
   Email: jazizov@ada.edu.az
   Phone:
   Relationship: Math teacher