Yusif Mehdiyev

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Joseph Mehdiyev in Joseph Mehdiyev

Azerbaijan, Baku

EDUCATION

• ADA University 2024 - Present

Bachelor of Science in Mathematics

Baku, Azerbaijan

o 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

Baku, Azerbaijan

General Secondary Education
◦ 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

Teaching Assistant in Linear Algebra

EXPERIENCE

Teaching Assistant in ADA university

February 2025 - Since

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

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- 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

ve

 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.

Abstract Algebra notes

January 2025 - Present

Personal notebook in a style of a book for personal purposes



- Made another personal notebook for further revise and studying purposes.
- Will write about Group Theory, Ring Theory and Field theory.

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

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