Baku City, Lokbatan Settlement, Cenub Gapisi Residential Complex AZ | +994 70 952 42 96
| hummatovagunay02@gmail.com

GUNAY HUMMATOVA

PROFESSIONAL SUMMARY

MSc Engineering Mathematics graduate with strong expertise in machine learning, deep learning, and computational modelling for real-world engineering problems. Possesses a rigorous applied mathematics foundation combined with hands-on experience developing machine learning and deep neural network solutions using Python and modern ML frameworks.

Experienced in exploratory data analysis, feature engineering, and statistical modelling of complex datasets. Skilled in scientific programming, numerical simulation, and mathematical modelling using ODEs, PDEs, and the Finite Element Method, enabling the development of physics-informed and data-driven models.

Strong working knowledge of deep learning architectures including neural networks and modern training pipelines, with practical experience using PyTorch, Keras, and TensorFlow. Familiar with Natural Language Processing and Large Language Model fundamentals, as well as the broader machine learning lifecycle and MLOps concepts.

Recognized for academic excellence through achieving 653/700 in national university entrance examinations and being awarded the prestigious State Program Scholarship. Seeking machine learning or AI engineering roles within technology or engineering-focused industries, where advanced mathematics, deep learning expertise, and analytical problem-solving can drive innovative and scalable solutions.
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SKILLS

- **ML&AI** - Linear and Regularized Regression, Time Series Analysis, Classification algorithms including KNN, Logistic Regression and Decision Trees, Ensemble Methods, Model Evaluation & Validation, NLP, Data visualization

- **Programming Languages** - Python (and libraries), SQL, MATLAB, JavaScript

- **Mathematics -** Linear Algebra and Multivariate Calculus, Probability & Statistics, Stochastic and Deterministic modeling foundations, Numerical Methods

- **Deep Learning Frameworks & Tools:** PyTorch, Keras, TensorFlow (working knowledge)

- **MLOps & Software Practices:** Understanding of ML lifecycle, model deployment concepts, experiment tracking, version control, and reproducible pipelines

- **Soft Skills -** Problem Solving, Analytical Thinking, Communication, Storytelling with Data, Academic Writing, Collaboration in Cross-functional Teams

EDUCATION

University of Bristol
Engineering Mathematics, 02/2026

Code Academy
Web Programming Essentials, 06/2023

Ganja State University
Bachelor's Degree, Mathematics and Computer Science, 05/2023

WORK HISTORY

INFORMATION SYSTEMS MANAGER 10/2025 - Current
Khazar University, Baku, Azerbaijan

- Collaborate with academic and administrative stakeholders to support data-driven decision-making and improve institutional processes

- Analyze large-scale student feedback datasets using NLP techniques, including sentiment analysis, topic modeling, and text classification

MATHEMATICS TUTOR 05/2024 to 09/2024
Oghuz Education Center, Baku, Azerbaijan

- Mentored struggling students, providing additional resources and encouragement that led to significant improvements in performance.
- Tutored students of all abilities in college level.

MATHEMATICS TUTOR 2019 to 2024
Amin Education Center, Ganja, Azerbaijan

- Delivered one-to-one and group tutoring sessions in mathematics
- Assisted students in understanding mathematical concepts and problem-solving techniques.

CERTIFICATIONS AND ACHIEVEMENTS

- IBM Deep Learning with PyTorch, Keras and Tensorflow Professional Certificate – In progress (Completed 3/5 Courses)
- MLOps | Machine Learning Operations Specialization – In progress
- IELTS, 7.0
- Winner of Scholarship Program for Talented Youth, Collaboration between bp and Roof Academy
- Winner, Mathematics Olympiad, Competed among students of the Mathematics & Informatics Faculty

PROJECTS

- MSc dissertation, Self-assembly of Nanostructured Materials for Organic Solar Cells- simulating phase separation process using FEM library FEniCSx.
- Group Project, solving Cell Suppression Problem by applying advanced mathematical modelling techniques and algorithms to datasets provided by the Office for National Statistics, UK.
- Sustainable Energy Systems Group Project, Feasibility of implementing renewable energy solutions for Barton Hill's housing blocks, collaboration with Baggator Nexus, Bristol.

WEBSITES

- https://github.com/hummetova-gunay