Ulviyya Aliyeva

Phone number: (+994) 555807617 **Email address:** ulyaaliyeva206@gmail.com

LinkedIn: www.linkedin.com/in/ülviyyə-əliyeva

GitHub: https://github.com/ulya1202

ABOUT ME

Enthusiastic and curious AI with a strong interest in Natural Language Processing (NLP) and Data Science. Passionate about using artificial intelligence to improve human lives. Continuously learning and growing to one day contribute to the development of human-like, ethically aligned AI systems.

WORK EXPERIENCE

Kontak Home

Junior AI engineer

[01/2025 – Current]

- Building "Bots" /RAG systems.
- Research Ai solutions for automation manual works.

Kapital Bank

AI Engineer Intern

[25/08/2025 – 25/11/2025]

- Assisted in the implementation of the “Aila” RAG chatbot, specifically by adapting workflow logic and Python scripts to support multilingual functionality.
- Validated system guardrails by testing edge cases and refining prompts to ensure safety across different languages.
- Gained hands-on experience with Dataiku and LangGraph by troubleshooting and optimizing specific components of the pipeline.

DeepLearning.ai

Website: https://community.deeplearning.ai/

Beta-tester & Mentror

[01/2025 – Current]

Selected as a beta tester for new courses, features, and tools developed by DeepLearning.AI, a leading platform for AI and machine learning education.

- Provided detailed feedback on the content quality, technical clarity, and usability of learning modules
- Tested hands-on exercises and coding environments, identifying bugs or unclear instructions
- Assessed model outputs and DL workflows (especially in NLP-focused content) to ensure pedagogical effectiveness
- Contributed user-centered insights to improve learner experience

This role allowed me to deepen my understanding of deep learning concepts while supporting the improvement of educational tools for a global AI learning community.

Div Academy – Baku, Azerbaijan

AI Engineer/Data Science Mentor

[24/03/2025 – 19/09/2025]

- I support students in understanding core concepts of Data Science, with a focus on:
  - Python programming and libraries (pandas, NumPy, matplotlib)
  - Data cleaning, preprocessing, and basic feature engineering
  - Introductory machine learning algorithms (e.g., linear regression, KNN, decision trees using scikit-learn)
  - Foundational tasks in Computer Vision (e.g., image preprocessing, simple classification)

I'm particularly passionate about AI and Natural Language Processing (NLP), and I actively work on improving my skills in these areas. While I help students build confidence in their technical abilities, I also remain open about the fact that I'm still learning and growing — especially when it comes to more advanced topics.
For me, mentoring is not about having all the answers — it’s about learning *together*, encouraging curiosity, and building a supportive space where students (and mentors!) grow through shared exploration and hands-on problem solving

.

DataVision

Email address: rustam_alizada@icloud.com

Data Analyst Intern

-Analyzed datasets, generated insights.
-Created visualized trends.
-Cleaned data, ensured accuracy.
-Collaborated
-Hands on experience in sklearn , numpy, pandas
-Utilized data tools to optimize workflows.

EDUCATION AND TRAINING

Student, Data Science
Div Academy [10/2024 – Current]

City: Baku | **Country:** Azerbaijan

#GələcəyiYazanlar Scholarship (Div Academy)
Skills:
-Studied transformer models like BERT and GPT, applied NLP techniques using Hugging Face libraries, focusing on text processing, language modeling, and transfer learning.
-Gained solid understanding of vectors, matrices, linear transformations, eigenvalues, and eigenvectors—core mathematical concepts essential for AI and ML.
-Covered supervised and unsupervised learning,neural networks, CNNs, deep learning fundamentals and etc.

Master's degree, Expertise and marketing of food products
Azerbaijan State University of Economics • UNEC [09/2024 – Current]

- **1st place-ClimaTech and Sustainability Hackathon-** (Impuls4Women , IDDA)
- **1st Place Winner – Brand Boom Marketing Competition.** (Azersun Holding)

Bachelor's degree, Food engineering
Azerbaijan State University of Economics • UNEC [03/2021 – 07/2024]

City: Baku | **Country:** Azerbaijan | **Field(s) of study:** Food engineer | **Final grade:** 91 | **Thesis:** Addition of various fruits (bio-active substances) to kefir

-I attended the Multicultural Summer School in Girne American University (Cyprus) and received participation at B2 English language course certificate
-Attended a Python course organized by BP

LANGUAGE SKILLS

Mother tongue(s): Azerbaijani

Other language(s):

Russian
LISTENING C2 **READING** C2 **WRITING** B1
SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

English
LISTENING B2 **READING** B2 **WRITING** B1
SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

Turkish
LISTENING B2 **READING** B2 **WRITING** B2
SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

German
LISTENING A1 **READING** A1 **WRITING** A1
SPOKEN PRODUCTION A1 **SPOKEN INTERACTION** A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

SKILLS

NLP / Computer Vision / Analytical skills / Critical thinking / Data Science: Machine Learning, Data Analysis, Data Exploration, Data Wrangling, Data Visualization / Python visualization libraries (Matplotlib & Seaborn) / PostageSQL / Machine Learing / Microsoft Excel / Microsoft Word / scientific research. / Microsoft Office / Power BI, Excel, Power Point / Knowledge of SQL. / Python Language

PROJECTS

[11/07/2025 – Current]

GPT Language Model (Scratch Implementation) — Team Project (for educational purposes) (in progress ….) *PyTorch, Transformers, NLP, Deep Learning*

- Designing and implementing a **decoder-only Transformer (GPT)** architecture from scratch, including **Causal Multi-Head Attention**, **Feed-Forward MLP blocks (4× expansion)**, **Layer Normalization**, **Residual Connections**, and **Dropout**.
- Applied **weight tying** between input token embeddings and output projection layer to reduce parameters and improve training efficiency.
- Developed **training loop** with **gradient accumulation**, **AdamW optimizer (fused variant for CUDA)**, **cosine learning rate scheduler with warmup**, and **gradient clipping** to stabilize training on limited GPU resources.
- Built a **lightweight DataLoader** for tokenized datasets, enabling sequential batch sampling, train/validation split, and deterministic iteration.
- Implemented **autoregressive text generation** with **top-k sampling**, supporting reproducible sequence generation and exploration of model output.
- Project leverages insights from **GPT-2/3 papers**, *Attention Is All You Need*, and **Andrej Karpathy's nanoGPT tutorials**, integrating modern best practices such as **Flash Attention** when available.
- Actively working on model evaluation, optimization, and further improvements to enhance performance and generation quality.

Link: https://github.com/Rstam59/ChatGpt/blob/architecture/GPT2_v2.ipynb

Conglomerate Concrete Crack Detection for learning purposes (with group)**Automated Concrete Crack Segmentation using U-Net Architecture (Computer Vision Project):**

- Developed an **end-to-end deep learning pipeline** for concrete crack detection using **Keras** and **TensorFlow**.
- Created a custom **data loader** with image and mask pairing, normalization, resizing, and augmentation (random flips, brightness, and contrast) for robust training.
- Implemented a **U-Net architecture** with skip connections for precise **pixel-wise segmentation** of cracks.
- Developed custom loss metrics (**Binary Cross-Entropy + Dice loss**) and **Dice Coefficient** metric for highly imbalanced data.
- Trained the model on a large dataset of concrete images and masks, achieving significant improvement in segmentation accuracy across epochs.
- Created a **visualization and overlay system** for qualitative evaluation of ground truth vs. prediction masks.
- Utilized advanced training techniques such as **data augmentation** and **parallel data pipelines** (using tf.data), ensuring scalability and efficiency for large datasets.

Link: https://github.com/ulya1202/Computer_vision_projects/blob/main/Conglomerate_Concrete_Crack_Detection.ipynb

Shakespearean Text Generation Model (using GRU) Character-level RNN Model for Text Generation (Shakespeare Dataset):

- Developed a character-level text generation model using **TensorFlow** and **Keras**.
- Created a custom **data preprocessing** pipeline, including character-based tokenization and sliding window generation.
- Trained a **GRU-based neural network** for next-character prediction.
- Implemented **temperature-controlled sampling** for diverse text generation.
- Evaluated model performance with **validation sets** and used checkpointing for best-model persistence.

.

Link: https://github.com/ulya1202/NLP/blob/main/Fake_Shakespeare.ipynb

Hands Digit Recognition and Interface Control *Hand Gesture Digit Recognition*

- Developed a system to recognize hand-written digits shown via fingers (hand digits) and control a computer interface based on detected gestures.
- Built and trained a **custom Convolutional Neural Network (CNN)** from scratch to classify digits from hand gestures, emphasizing understanding of model structure and behavior rather than using pre-trained networks.
- Implemented most of the logic manually for learning purposes, while integrating **MediaPipe** for accurate and stable hand detection and landmark tracking.
- Focused on **end-to-end pipeline**: gesture capture ➔ hand detection ➔ preprocessing ➔ digit classification ➔ interface control.

Link: https://github.com/ulya1202/hand_detection

Emotion detection (learning purposes)**Real-time Emotion Detection System (Transfer Learning & OpenCV)**

- Developed a **live webcam emotion detection** application using **OpenCV** for face detection and **Keras** for deep learning-based emotion classification.
- Leveraged **transfer learning** by fine-tuning the **Xception** convolutional neural network on an emotion dataset (Angry, Happy, Neutral, Sad, Surprise).
- Created an end-to-end **inference pipeline** (capture ➔ face detection ➔ preprocessing ➔ classification ➔ annotation) achieving **high accuracy** and responsiveness.
- Trained and saved the model in .keras format for seamless deployment in real-time applications.

Link: https://github.com/ulya1202/emotion_detection

COURSES AND CERTIFICATES/DIPLOMAS

Neural Networks and Deep Learning

Link: https://coursera.org/share/932e961f78dd583552cfbb45d9c9f087

Machine Learning

Link: https://coursera.org/share/4881bba7faa51a3f639876631efcaba6

Advanced Learning Algorithms

Link: https://coursera.org/share/13343186d68f67e92cddd70ef7eaf263

Unsupervised Learning, Recommenders, Reinforcement Learning

Link: https://coursera.org/share/bd2a6c8e64be857b3f4783fbb4e30f52

Supervised Machine Learning: Regression and Classification

Link: https://coursera.org/share/bf6ece2975c1db454fb195f93d92c294