

(+994) 50-577-83-98
Baku, Azerbaijan
yagub.ismaili@gmail.com

Yagub Ismayilli

Data Scientist / AI Engineer / SQL Developer

github.com/JcbNesh
linkedin.com/in/JcbNesh

Data Science and Artificial Intelligence specialist with hands-on experience fine-tuning Transformer models across two industrial research internships, covering handwritten text recognition for Azerbaijani and a customer-support chatbot. Skilled in working with PyTorch, Hugging Face Transformers, TensorFlow, Pandas, and NumPy to build data-driven and intelligent solutions, supported by strong Oracle SQL and PL/SQL foundations.

Strong academic background, including a double master's degree in Data Science and Artificial Intelligence, with notable achievements in computer science, algorithms, and AI-related coursework. Also experienced as a Full Stack Developer in React.js and Node.js, which helps in delivering models as usable applications. Seeking opportunities to apply my skills in DSAI and modern web development to drive innovative technological advancements.

SKILLS

Programming	Python, SQL, PL/SQL, JavaScript, Data Structures & Algorithms
Databases	Oracle Database, Relational Data Modelling, Query Optimisation
Machine Learning	PyTorch, Hugging Face Transformers, TensorFlow / Keras, scikit-learn, Pandas, NumPy
Research Areas	LLM / Transformer Fine-Tuning, Natural Language Processing, Handwritten Text Recognition (OCR), Computer Vision, CNNs & Object Detection
Web & Tools	React.js, Node.js, Git, Linux / WSL
Languages	Azerbaijani — Native, Turkish — C1, English — B2, German — B1

EXPERIENCE

Machine Learning Intern — Master's Thesis <i>Evler.az LLC, IT Department</i>	January 2026 — May 2026 <i>Baku, Azerbaijan</i>
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- Built an end-to-end handwritten text recognition (OCR) pipeline for Azerbaijani, a low-resource language, to automate digitisation of handwritten real-estate documents.
- Fine-tuned a Transformer encoder-decoder (TrOCR) on 25,000 synthetic Azerbaijani text-line images, reaching 6.40% character error rate and 55.4% exact-line-match accuracy.
- Collected and annotated a 5,000-image real handwriting dataset; a second fine-tuning stage cut character error rate to 3.47%, word error rate to 10.4%, and raised exact-match accuracy to 75.7%.
- Benchmarked against TrOCR-small (21.44% CER) and a CNN-BiLSTM-CTC baseline (17.23% CER), a roughly fivefold error reduction from the pretrained Transformer approach.

NLP / Machine Learning Intern <i>GNI Software</i>	January 2025 — May 2025 <i>Baku, Azerbaijan</i>
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- Fine-tuned DialoGPT-small, a 117M-parameter GPT-2 variant, into a customer-support chatbot using Hugging Face Transformers and the Trainer API.
- Built the training corpus from the 3M-tweet Twitter Customer Support dataset, reconstructing conversation threads to extract roughly 20,000 single-turn prompt-response pairs.
- Trained within 4 GB of VRAM (RTX 3050) using mixed-precision (fp16) and small-batch training; loss converged from 4.6 to 3.3 with no signs of overfitting.
- Profiled the corpus by token length, intent category, and vocabulary, and documented limitations around single-turn context, single-brand domain bias, and lack of factual grounding.

Software Developer — Data Science & Web <i>Freelance</i>	September 2023 — Present <i>Remote</i>
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- Developed and fine-tuned NLP models for text classification, sentiment analysis, and sequence processing using TensorFlow / Keras.
- Trained and evaluated supervised machine learning models for prediction and classification tasks, covering feature engineering, model selection, and validation.
- Cleaned, transformed, and analysed client datasets in Python (Pandas, NumPy), and built responsive web applications with React.js and Node.js.

Programming Mentor <i>Meridian Course</i>	June 2023 — September 2023 <i>Baku, Azerbaijan</i>
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- Taught core programming concepts, data structures, and algorithms to students through real-world examples and structured lesson plans.
- Reviewed student code and guided debugging, building their technical and analytical problem-solving skills.

Full Stack Developer

Lider Advertising

- Developed and maintained internal web applications using Laravel and PHP, backed by a relational database, and wrote SQL queries for diagnostics and reporting.
- Provided technical support to internal users, resolving production system issues and improving day-to-day workflow efficiency.
- Debugged and optimised existing application code, improving reliability and reducing recurring system failures.

May 2022 — November 2022

Baku, Azerbaijan

EDUCATION

Master of Science — Data Science and Artificial Intelligence, Azerbaijan-French University (UFAZ)

2023–2026

Thesis: Development of a Handwritten Text Recognition (OCR) System for the Azerbaijani Language

Master of Science — Data Science and Artificial Intelligence, University of Strasbourg

2023–2026

Thesis: Development of a Handwritten Text Recognition (OCR) System for the Azerbaijani Language

Bachelor of Science — Computer Science, Khazar University

Grade – 82.57/100, 2019–2023

Professional Course — Oracle PL/SQL, Kursor Education

Score – 95/100, Apr — Jun 2026

Professional Course — Oracle SQL, Kursor Education

Score – 100/100, Jan — May 2026

Professional Course — Full Stack MERN Development, Codelandia IT School

Score – 91/100, 2023–2024

High School Diploma — Attestat (with Honours), S. Babayev Secondary School, Bilasuvar

2008–2019

ADDITIONAL EXPERIENCE

Head Bartender, Dreamland Baku

July 2024 — Present

Lead bar operations and customer service in a high-volume venue; train and coordinate junior staff.

Financial Accountant, Borani, Baku

March 2024 — July 2024

Handled inventory accounting across branches and prepared monthly financial and inventory reports.

Office Manager, OMP Academy, Baku

January 2024 — May 2024

Coordinated medical conference planning: logistics, scheduling, documentation, and administration.

AWARDS AND CERTIFICATES

Oracle PL/SQL Course Certificate — Kursor Education

June 2026

Oracle SQL Course Certificate — Kursor Education

May 2026

IELTS Academic — Overall Band 6.5, British Council / IDP

March 2025

SQL (Intermediate) Certificate — HackerRank

July 2023

JavaScript (Intermediate) Certificate — HackerRank

July 2023

Predictive Analytics Essential Training: Data Mining — IIBA

June 2023

Honor Certificate — Khazar University

February 2021

State Scholarship — Ministry of Science and Education, Republic of Azerbaijan

September 2019