

# ALDAMZHAR KIIKBAYEV

Astana

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## EDUCATION

### Nazarbayev University

Master of Data Science

Astana

August 2022 – June 2024

**Thesis Project:** Consumer Health Question Answering with LLM-based Simplification and Summarization

**Coursework:** Probability and Statistics for Data Science, Fundamentals of Data Science, Process and Project Management, Database Management Systems, Acquisition and Analysis of Biomedical Data, Big Data Analytics, Computer Vision, Data Mining and Decision Support

### Nazarbayev University

Bachelor of Computer Science

Astana

August 2018 – June 2022

**Coursework:** Machine Learning with Applications, Deep Learning, Brain-Computer Interfaces, Discrete Mathematics, Performance and Data Structures, Programming for Scientists and Engineers, Probability and Statistics, Linear Algebra, Calculus 1&2, Software Engineering, Programming Languages, Database Systems

## EXPERIENCE

### NLP Engineer | ForteBank

Aug 2024 – Present

- **Architected the Bank's Chatbot Hub:** Designed a secure FastAPI-based backend orchestrating 3 AI assistants (metadata, legal, document Q&A) across 3,000+ employees; managed backend/frontend/NLP delivery
- **Built AI Assistants from Scratch:** Delivered 3 chatbots — integrated with DataLake: 2,000+ reports, 1,000+ internal documents, and legal databases; reduced analyst/legal workload
- **Implemented LLM + Retrieval Pipelines:** Engineered real-time logic with metadata clustering, classification, and context-enriched querying; deployed within bank-secure systems meeting audit and compliance standards

### Machine Learning Engineer | zypl.ai

Sep 2024 – May 2025

- **End-to-End ML Model Delivery:** Refactored forecasting and credit scoring systems with KS test, PSI, and adversarial validation; deployed on 15K+ loan applications for risk profiling and valuation
- **Modular ML Pipelines & CLI Tooling:** Developed AutoML pipeline integrating SFA, MLflow, preprocessing; implemented blind validation CLI for statistical validation with auto-generated PDF reporting
- **Multilingual Embeddings & Rare-Language Data:** Trained BERT/XLM-R on OSCAR, OpenSubtitles, MC4; visualized clusters with UMAP and curated Tajik/Arabic corpora for LLM evaluation (MMLU, IFFeval)

## PROJECTS

### Gourmet: Exclusive offers in premium restaurants | Laravel, PHP 8.1, MySQL

October 2024

- Backend API development, **TipTopPayments** payment gateway integration
- Database queries optimization, code refactoring

### Specialized LLM therapist | Python, streamlit, deepttranslator, OpenAI & Perplexity API

July 2024

- Got enrolled to **Microsoft For Startups Founders Hub** program with funding of up to \$150000
- Developed an AI chatbot that provides users a therapeutic experience
- Integrated **Perplexity** API for LLM to add contextual knowledge about the patient's query
- Prompt-engineered **ChatGPT-4o** and **ChatGPT-4o-mini** for language support, empathy and sense of comfort
- **Video Demo**

### Financial Transactions Service | Golang, Docker, RESTful API

May 2024

- Designed and developed a **RESTful API** using **Go** to manage user accounts and financial transactions
- **Dockerized** the service to ensure consistent deployments across different environments, facilitating easy scalability and seamless integration into CI/CD pipelines

## TECHNICAL SKILLS

**Languages & Frameworks:** Python (PyTorch, langchain, scikit-learn, pandas, numpy), PowerBI, SQL

**Miscellaneous:** Linux, tesseract, Git, biopython, OpenAI API, Gemini API, Docker