

Malika Umurzakova

little.avel@gmail.com | Bishkek, Kyrgyzstan

SUMMARY

Software Engineer with strong backend experience and hands-on work with LLM APIs. Experienced in building production systems, integrating external APIs, and designing AI-assisted workflows. Currently focused on prompt engineering, multi-step reasoning, and RAG-based solutions for reliable and structured LLM outputs.

TECHNICAL SKILLS

- Python, Ruby
- Prompt Engineering (multi-step reasoning, structured outputs)
- OpenAI API
- RAG fundamentals (document chunking, retrieval, embeddings)
- API & async backend systems
- PostgreSQL, AWS, Git

PROJECTS

LLM Document Analysis Assistant

- Designed prompt pipelines for extracting structured data from business documents using multi-step reasoning.
- Implemented a RAG workflow with document chunking, retrieval, and structured JSON outputs.
- Built a Python-based service integrating OpenAI API with validation and fallback strategies.

Prompt Evaluation & Safety Playground

- Developed a lightweight framework to evaluate prompt quality across accuracy, stability, and format compliance.
- Designed test cases to detect hallucinations and invalid structured outputs.
- Implemented automated prompt testing using Python and LLM APIs.

PROFESSIONAL EXPERIENCE

Independent Software Engineer

Remote

September 2024 – Present

- Developed small technical projects and prototypes, focusing on backend development, APIs, and automation.
- Explored AI-assisted workflows and integrations using Python and LLM APIs (prompting, structured outputs).

Capay Technologies - CT-Tracker Project

Davis, CA, USA (Remote)

Full-Stack Software Engineer

November 2022 – August 2024

- Built and shipped end-to-end features for a startup platform optimizing construction document workflows under California regulatory constraints.
- Designed database schemas and optimized queries to support large document volumes and new product features.
- Integrated external APIs, including NOAA weather data and OpenAI API, to automate planning, tagging, and asset description.
- Developed background services for document processing and PDF/Excel generation using asynchronous workflows.

- Delivered production-ready features with full-stack ownership, including testing and deployment.
- **Technologies:** Ruby, Ruby on Rails, JavaScript, PostgreSQL, Redis, Sidekiq, Hotwire, WebSockets, AWS, OpenAI API, NOAA API

TimelySoft - IFC Project

Software Engineer

Bishkek, Kyrgyzstan

June 2020 – June 2021

- Built algorithmic cost-calculation logic for an IFC credit calculator used by microfinance companies to estimate construction budgets.
- Implemented rule-based and mathematical models to compute construction costs based on building geometry, materials, and local regulatory constraints.
- Developed a cross-platform desktop application (Xamarin) enabling users to model houses through constrained components (walls, roofs, windows, materials, etc).
- Optimized and refactored calculation algorithms to improve accuracy, performance, and maintainability.
- Integrated application logic with backend APIs and contributed to maintaining a legacy WinForms system.
- **Technologies:** C#, .NET, ASP.NET, Xamarin, Windows Forms, Microsoft SQL Server, Azure DevOps

EDUCATION

Kyrgyz-Turkish Manas University

BSc in Computer Science

Bishkek, Kyrgyzstan

September 2018 – July 2022

Honors: Cum Laude (GPA: 3.62/4.0)

Activities: ICPC Competitions, Hackathons

- Strong foundation in algorithms and problem solving through ICPC competitions
- Conducted research on face recognition using 3D modeling techniques, focusing on structured data representation and analysis

LANGUAGES

Russian (C1), English (C1), Turkish (C1), Kyrgyz (C1)