

Maryam Teimouri

Stockholm, Sweden (open to relocation)

maryam.teimouri.bd@gmail.com — +358 415 716 421

linkedin.com/in/maryamteimouri — github.com/maryamteimouri

Profile

Early-career AI and research engineer with a strong foundation in Python and experience developing **AI tools for data extraction, processing, and analysis**. Background spans **LLM-based systems**, retrieval-augmented generation (RAG), multimodal data pipelines, and empirical evaluation workflows. Experienced in applied research settings, working with real-world datasets, and building reliable, well-documented software that supports analysis and decision-making.

Research & Technical Interests

- AI-assisted data extraction from unstructured and semi-structured sources
- Large Language Models for retrieval, summarization, and validation
- Evaluation and benchmarking of AI/ML pipelines
- Human-AI interaction and multimodal data analysis
- Applied NLP and research tooling for analysis workflows

Core Skills

Programming: Python, C++, C, Bash, C#

AI / ML: PyTorch, TensorFlow, scikit-learn, embeddings, RAG, semantic search, vector search

Data Engineering: Pandas, NumPy, SQL, ETL pipelines, data wrangling, dataset preparation

APIs & Tooling: FastAPI, REST APIs, Git, OpenAI API, LangChain, Streamlit, vLLM

Platforms: Linux, HPC / CSC, Google Colab, Heroku

Ways of Working: Experiment design, benchmarking, documentation, collaborative research

Experience

AI Engineer — PrimentoringAI 2025 – Present

- Developing an AI-powered mentoring and education platform using LLMs.
- Working on data ingestion, prompt-driven reasoning components, and backend logic.
- Emphasis on maintainable code, iterative testing, and clear documentation.

AI Research Engineer — University of Turku (TurkuNLP Group) 2024 – Present

- Designing and implementing **data processing pipelines** for multilingual text, including cleaning, normalization, embedding generation, and indexing.
- Building tools for **information extraction, comparison, and validation**.
- Conducting **experiments and benchmarking** to evaluate retrieval quality and LLM behavior.

Technical Research Assistant — University of Turku, FTTLab 2023 – 2024

- Worked on a remote-presence mixed-reality project involving real-world interaction data.
- Performed **transcription, annotation, and data wrangling** to prepare datasets for analysis.
- Collaborated with researchers from AI, HCI, and software engineering backgrounds.

Back-end Developer — NovinParva 2022

- Developed a web application for educational content delivery using Django.
- Implemented backend logic, database interactions, and API-based workflows.

Internships

Research Intern — FTLab, University of Turku 2023

- Worked on remote-presence technology using Unreal Engine, C++, and computer-vision techniques.
- Contributed to experimental prototyping and evaluation of immersive communication systems.

Computer Vision Intern — Fanap Infrastructure 2021

- Participated in a project on automated license-plate recognition.
- Worked across the pipeline from image acquisition to database storage and validation.

Selected Projects

RAG-Based LLM System for Data Validation and Harmonization in Ship Design 2025

- Developed a retrieval-augmented generation solution to extract and compare parameters from 2D drawings, 3D models, and technical specifications.
- Implemented workflows for anomaly detection and consistency checking to reduce manual validation.

AI Meeting Assistant 2025

- Built an LLM-powered tool for summarizing meeting transcripts and extracting action items.
- Focused on text cleaning, segmentation, and post-processing of model outputs.

SinceAI Hackathon – AI Visualization & Summarization Agent 2025

- Built an AI agent recommending data visualizations based on user queries and retrieved DataFrames.
- Implemented a second stage generating concise summaries of the analysis process using selected visualizations with a FastAPI backend integrating OpenAI and Featherless APIs.

Conferences & Seminars

RANLP 2025, Varna, Bulgaria

A Deep Dive into Adaptive Multi-Head Attention and Multi-Aspect Embedding
Focus on understanding document–topic alignment and context filtering for RAG tasks.

Interaction Design and Children Conference 2025, Reykjavík, Iceland

Interaction Analysis by Humans and AI: A Comparative Perspective.

Education

Master of Engineering, ICT – Data Analytics 2022 – 2024
University of Turku, Finland

B.Sc. Computer Engineering 2017 – 2021
K. N. Toosi University of Technology

Languages

English (C1–C2)
Finnish (A2)