

Arastun Mammadli

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Profile

An MSc Applied Computational Science graduate from Imperial College London looking to pursue further research. I am interested in Deep Learning (DL), Natural Language Processing (NLP), Reinforcement Learning (RL), and LLM-backed agent systems that have largely emerged from the intersection of these fields. My dissertation work focused on applying emerging agentic frameworks on campus energy management. I worked with Azure AI Services @ Microsoft under Prof. Lee Stott's supervision.

Education

- Imperial College London**, MSc Applied Computational Science and Engineering Sept 2024 – Sept 2025
- Distinction, Multi-Agent Conversational Energy Management (Prof. Lee Stott, Prof. Gerard Gorman)
- University of Exeter**, BSc Computer Science Sept 2020 – May 2024
- First-Class Honours, Dean's list for Year 1 (top 5%)
 - Geometric Semantic Genetic Programming for Parkinson's disease diagnosis (Dr. Alberto Moraglio)
- Dunya IB School**, International Baccalaureate Diploma Sept 2018 – May 2020
- Grade: 40, Extended Essay: Genetic Algorithms in Constrained Optimization Problems

Experience

- Microsoft**, Research Intern June – Sept 2025
- Worked on conversational multi-agent workflows for campus energy management. Developed a full-stack prototype using Azure AI Agent Services, Azure AI Search (RAG), and Azure AI Language (NLP services).
 - Used Azure Evaluation SDK for model selection, prompting, query complexity and routing ablations.
 - Independently managed project timelines, and weekly communicated progress to Microsoft stakeholders.
- Imperial College London**, Internal Project May 2025
- Developed discrete and continuous genetic algorithm solvers to optimise circuit design.
 - Developed circuit simulator (mass-balance solver) and a validity checker for performance evaluations.
 - Collaborated with team of 8, managed the team's GitHub repository for software sustainability.
- Imperial College London**, Internal Project Jan 2025
- Developed Deep-Learning (U-Net, Conv-LSTM) models for real-time lightning storm prediction.
 - Strengthened expertise in data and time-series analysis, deep learning, and scientific computing.
- Embawood LLC**, Software Developer Intern, Baku, Azerbaijan May – Aug 2023
- Developed and maintained Java-based applications using the Spring Framework.
 - Participated in code reviews and technical presentations, wrote unit and integration tests (JUnit)

Skills

Programming Languages: Python, C++, C, Java, C#

Tools & Frameworks: PyTorch, NumPy, SciPy, Scikit, Gym, Colab, Pandas, DBMS, Git, REST APIs, MPI, OpenMP

Agent Systems: AutoGen, Semantic Kernel, Azure AI Foundry, LangChain, LangEvals, MCP, A2A

Languages: Fluent in English, Azerbaijani, Russian, and Turkish, Limited working in Spanish

References available on request