Soroush Mortazavi

soroushmortazavim@gmail.com | Linkedin | Github | Webpage | Ontario, Canada

Education

University of Waterloo — Waterloo, Canada
Master of Applied Science in electrical and computer engineering — *Sep. 2022 – Sep. 2024*

- Thesis: Robust Reinforcement Learning for Linear Temporal Logic Specifications with Finite Duration
- **Best paper award at the 37th Canadian Conference on Artificial Intelligence (CAIAC 2024)**

Amirkabir University of Technology — Tehran, Iran
Bachelor of Science in computer engineering — *Sep. 2017 – Mar. 2022*

- Thesis: Learning the Game of Gobblet Through Reinforcement Learning

Work Experience

Cloud Engineer — Markham, Canada
Huawei Canada — *Aug. 2025 – Present*

- Designed and deployed a **Kubernetes**-based microservices system including a forecasting service, backend and UI, to monitor real-time VM demand and visualize historical and projected cost/latency.
- Built a simulation-driven optimization engine to **evaluate autoscaler configurations**, predicting and recommending settings that reduced cost and latency by up to 60%.

Machine Learning Engineer — London, UK (remote)
Open Power — *Oct. 2023 – Aug. 2025*

- Developed and deployed an AI-powered dashboard using **PyTorch** for solar panel detection achieving over 80% accuracy on UK satellite imagery with **vision transformers** and custom CNNs.
- Designed and implemented a serverless, **scalable prediction engine** managing 1,000+ custom ML models on GCP **Vertex AI**, utilizing a meta-agent architecture to enable automated aggregation for accurate and consistent online decision-making across 10+ business domains.
- Implemented **end-to-end CI/CD pipelines** for plug-and-play model deployment, enabling automatic model training, inference and hyperparameter tuning, with near-zero downtime for the prediction engine.

Research Assistant — University of Waterloo
CL2 lab — *Jun. 2022 – Sep. 2024*

- Developed an **RL** method using MCTS and neural networks for linear temporal logic specifications.
- Gained full experience in problem-solving, testing, and publishing results in peer-reviewed conferences.

Internship — Tehran, Iran
Roshan AI — *Jul. 2020 – Oct. 2020*

- Trained Persian word embeddings using Word2Vec, FastText, and GloVe.
- Developed a multi-threaded web crawler to gather 90GB of Persian web corpus, with extensive data cleaning.
- The resulting embeddings were used to improve the company's NLP application, boosting its performance.

Skills

Programming Languages & Scripting: Python, C++, C, React, JavaScript, Java, MATLAB, SQL

Frameworks and Libraries: LangChain, LangGraph, CrewAI, PyTorch, TensorFlow, Transformers, XGBoost, TensorBoard, Numpy, Scikit-learn, Pandas, Matplotlib, Seaborn, Tableau, FastAPI, Django

Developer Tools: Git, Kubernetes, Docker, DVC, Cloud Workflows, GCP, Google Colab, Vertex AI, Hadoop

Honors And Awards

Best Paper Award at the 37th Canadian Conference on Artificial Intelligence (CAIAC 2024)

Graduate Research Studentship (GRS) Scholarship of 36,000 CAD/year: University of Waterloo

International Master's Award of Excellence (IMAE) of 2,500 CAD/term: University of Waterloo

Ranked 19th/30K: In the national university entrance exam among 30 thousand students (Iran, 2016)

Announced as an outstanding student: in Amirkabir University of Technology