Sara Salamat

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Location: Toronto, ON

SUMMARY

Gen-AI Engineer specializing in agentic AI systems, Retrieval-Augmented Generation, and NLP, with hands-on experience building multi-agent architectures and real-time AI pipelines for capital markets applications.

SKILLS

Languages & Tools: Python, Rust, kdb+/q, SQL, FastAPI, Docker, Git, AWS

AI Frameworks: LangGraph, CrewAI, LangChain, LangSmith, OpenAI API, Hugging Face Transformers, PyTorch

Domains & Methods: Agentic AI, Multi-Agent Systems, RAG, LLMs, NLP, Information Retrieval, Prompt Engineering, Graph Neural Networks

EXPERIENCE

Gen-AI Solutions Developer| KX | July 2025 - Present

- Building agentic AI systems for capital markets applications including technical research automation, alpha discovery, and transaction cost analysis (TCA), using LangGraph-based multi-agent architectures
- Developed a market research agent platform currently in active sales pipeline with BMO, powering their MarketPulse product

Research Assistant | Reviewer.ly | Jan. 2024 - July 2025

- Developed a reviewer recommendation system by fine-tuning Transformer-based dense retrievers, achieving a 42% improvement in recommendation accuracy.
- Enhanced the reviewer matching algorithm's relevance and precision by conducting keyword extraction from authors' papers using a custom-trained T5 model.
- Deployed newly trained LLMs in the peer-review recommendation pipeline using Docker and REST APIs, improving the algorithm's speed and efficiency by 4x.

Data Science Intern | Eveince | Sep. 2021 - Feb. 2022

- Developed a large financial text dataset by crawling data from TradingView forum, Telegram channels, and Subreddits.
- Represented text data as enriched graphs, using text, topics, technical words as graph nodes to build a heterogeneous graph.
- Trained graph neural networks for text classification to predict market trends based on market analysis texts.

EDUCATION

M.A.Sc. in Computer Engineering | Totonto Metropolitan University | 2022 - 2024

Thesis: Learning Disentangled Neural Representations For Enhanced Query Performance Prediction
GPA: 4/4 | Supervisors: Dr. Ebrahim Bagheri and Dr. Morteza Zihayat

JOURNAL ARTICLES

- **S. Salamat**, et al. , *A Contrastive Neural Disentanglement Approach for Query Performance Prediction*, **Machine Learning Journal,** Impact Factor: 4.3 , 2023
- S. Seyedsaleh, **S. Salamat**, N. Arabzadeh, S. Ebrahimi, M. Zihayat, E. Bagheri, *Gender Disentangled Representation Learning in Neural Rankers*, **Machine Learning Journal**, Impact Factor: 4.3, 2023

CONFERENCE PAPERS

1. S. Ebrahimi, **S. Salamat**, N. Arabzadeh, M. Bashari, E. Bagheri, *exHarmony: Authorship and Citations for Benchmarking the Reviewer Assignment Problem*, 47th European Conference on Information Retrieval (**ECIR'25**), 2025.
2. N. Arabzadeh, S. Ebrahimi, **S. Salamat**, M. Bashari, E. Bagheri, *Reviewerly: Modeling the Reviewer Assignment Task as an Information Retrieval Problem*, ACM International Conference on Information and Knowledge Management (**CIKM'24**), 2024, Core Rank: A.
3. **S. Salamat**, N. Arabzadeh, S. Seyedsalehi, A. Bigdeli, M. Zihayat, E. Bagheri, *Neural Disentanglement of Query Difficulty and Semantics*, ACM International Conference on Information and Knowledge Management (**CIKM'23**), 2023, Core Rank: A.
4. **S. Salamat**, N. Arabzadeh, F. Zarrinkalam, M. Zihayat, E. Bagheri, *Learning Query-Space Document Representations for High-Recall Retrieval*, 45th European Conference on Information Retrieval (**ECIR'23**), 2023, Core Rank: A.
5. **S. Salamat**, N. Arabzadeh, S. Seyedsalehi, A. Bigdeli, M. Zihayat, E. Bagheri, *Don't Raise Your Voice, Improve Your Argument: Learning to Retrieve Convincing Arguments*, 45th European Conference on Information Retrieval (**ECIR'23**), 2023, Core Rank: A.
6. D. Vo, F. Zarrinkalam, B. Pham, N. Arabzadeh, **S. Salamat**, E. Bagheri, *Neural Ad-Hoc Retrieval Meets Open Information Extraction*, 45th European Conference on Information Retrieval (**ECIR'23**), 2023, Core Rank: A.

HONORS & AWARDS

- **First Place**, Three Minute Thesis (3MT), CANAI Conference, 2023.
- **Ryerson Graduate Development Award**, $9,000/year, 2022-2024.
- **Ryerson Graduate Fellowship**, $5,000/year, 2022-2024.
- **Alberta Machine Intelligence Institute Talent Bursary**, 2023 & 2024.