MOSLEM SHOKROLAHI

6134497401 • moslem.sh.99@gmail.com • linkedin.com/in/moslem-shokrolahi-22a48575/ • github.com/Moslem-Sh21

SUMMARY

Deep learning expert with 7+ years experience in areas including generative models, lifelong learning, and machine unlearning. Proficient in deploying vision systems using OpenCV, PyTorch, with hands-on experience in Edge AI platforms. Strong communicator with experience in academic research as well as industrial consulting.

WORK EXPERIENCE

KnowQuest, Canada: AI Consultant   September 2023 – May 2025

- Improving the core feedback and recommendation system with an LLM-facilitated RAG (Retrieval-Augmented Generation) framework. The enhancement brought a 23% improvement in Mean Reciprocal Rank (MRR) and considerably enhanced user engagement.

SaEspadan, Iran: Machine Vision Engineer   September 2018 – May 2021

- Designing a real-time machine vision system for stone classification, leveraging an ensemble of ResNet and EfficientNet models. Achieved a 40% reduction in human error and about 30% increase in throughput by using weighted averaging of model predictions.

Signal Processing Laboratory, IUT, Iran: Research Engineer   May 2013 – August 2016

- Developed high-precision simulation tools for adaptive filtering algorithms, contributing to more accurate coefficient estimation in EEG signal denoising using improved LMS-based methods.

TECHNICAL SKILLS

Programming Languages: Python (expert), C# (proficient), C++(proficient)
Frameworks and Tools: PyTorch, TensorFlow, OpenCV, scikit-learn, SQL, AWS, Git, MATLAB
Machine Learning Expertise: Diffusion Models, LLMs and Agents, RAG, Continual Learning, Machine Unlearning, Generative Models, Computer Vision, Self-Supervised Learning

EDUCATION

Ph.D. in Computer Engineering   May 2021–present
Queen's University, Smith Engineering   GPA: 4.15/4.3

M.Sc. in Communication Systems   September 2013–2015
Isfahan University of Technology, Electrical and Computer Engineering   GPA: 3.9/4.0

ACADEMIC RESEARCH EXPERIENCE

Ph.D. Researcher, Ubiquitous Artificial Intelligence Lab (UAI Lab), Queen's University   May 2021 – Present

- Designed a robust framework for safe and fair diffusion-based image generation, enabling high-quality and ethically responsible image outputs.
- Designed a generative text-to-image model for brain tumor detection.
- Developed continual learning algorithms using deep metric learning to mitigate catastrophic forgetting.
- Proposed novel machine unlearning techniques for efficient data erasure from trained models.

SELECTED PUBLICATIONS

- **Shokrolahi, S.M.**, Kim, I.M. (2025). *Combating Inter-Task Confusion and Catastrophic Forgetting by Metric Learning and Model Reuse*. Transactions on Machine Learning Research.
- **Shokrolahi, S.M.**, Kim, I.M. (under review). *Interpretable and Unbiased Text-to-Image Generation by Diffusion Models with Background Fidelity*. Submitted to NeurIPS 2025.
- **Shokrolahi, S.M.**, Kim, I.M. (under review). *Erasing the Past: Zero-Shot Machine Unlearning with Erasing Samples*. Submitted to IEEE Transactions on Artificial Intelligence.
- **Shokrolahi, S.M.**, Karimiziarani, M. (2020). *A Deep Network Solution for Intelligent Fault Detection in Analog Circuits*. Analog Integrated Circuits and Signal Processing.