Alireza Nik

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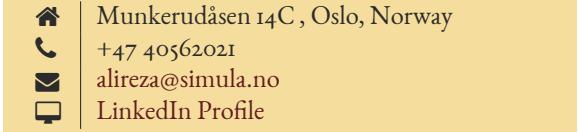+47 40562021
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LinkedIn Profile

DOCTORAL RESEARCH

"Towards Efficient and Optimized Inference of Deep Neural Network Architectures"

My PhD research focuses on optimizing inference for deep neural networks to improve efficiency and scalability. I explore algorithmic optimizations and resource-efficient computation to enhance inference speed while addressing key HPC challenges such as latency reduction, throughput improvement, and efficient resource utilization for AI models.

RESEARCH INTERESTS

- Advanced Techniques for Inference Efficiency of Neural Networks
- Scalability & Optimization in AI Workloads
- Theoretical Foundations of AI Optimizations

WORK EXPERIENCE

FROM NOV 2023 – CURRENT (OSL)

SimulaMet Research Center
PhD Student

As part of the Holistic Systems (HOST) department, I study the computational bottlenecks of large deep neural networks and develop techniques to optimize their inference on different hardware. Through exploration of promising avenues, this research has the potential to advance AI democratization and significantly facilitate the real-world deployment of large models in latency-sensitive applications with limited computational resources.

SEP 2022 – OCT 2023 (OSL)

Schlumberger (SLB)
Data Scientist

As a D&I Data Scientist, I focused on refining ML models for subsurface applications through thorough data preprocessing and feature engineering. I employed natural language processing (NLP) to extract insights from unstructured data like scanned well reports. Additionally, I developed and deployed computer vision models for the oil and gas sector, automating equipment and infrastructure inspection and monitoring, enhancing operational efficiency and safety.

MAY 2021 – AUG 2021 (OSL)

DNV AS
Summer Internship

As a Summer Intern Student, I carried out an in-depth analysis of equipment and maintenance practices, using Key Performance Indicators to pinpoint improvements. I also developed an information retrieval model and optimization software for handling reliability and maintenance data from the SAP system of a prominent Norwegian oil and gas company, enhancing their maintenance strategies and operational reliability.

EDUCATION

2023 – 2026	**Doctor of Philosophy** Engineering Science *Oslo Metropolitan University (OsloMet)*
2019 – 2022	**Master of Science** Computational Engineering *University of Stavanger (UiS)*
2011 – 2016	**Bachelor of Science** Electrical Engineering *Shahid Rajaee University (SRTTU)*

TECHNIC SKILLS

LANGUAGES	Python, C , Matlab, SQL, Bash
DATABASES	PostgreSQL
TECHNOLOGIES	Linux, Git/GitHub, Docker, PyTorch ML Libraries, Visual Studio Code

AREAS OF EXPERTISE

MACHINE LEARNING	Natural Language Processing
GENERATIVE AI	High Performance Computing
DATA WRANGLING	Software Development

AWARDS

2023	**Digital Innovation - Hackathon Winner** Issued by SLB (URL)

CERTIFICATES

2023	**Cognite Data Fusion Bootcamp** Issued by Cognite (URL)
2022	**Software Development Practices** Issued by SLB (URL)
2022	**ML Practitioner Certificate** Issued by Dataiku (URL)

LANGUAGES

- English
- Norwegian