

Najeeb Khan

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EDUCATION

PHD COMPUTER SCIENCE

UNIVERSITY OF SASKATCHEWAN

March 2021 | Canada

Dept. of CS Scholarship

Grade: 89.24 / 100

MS COMPUTER ENGINEERING

UNIVERSITY OF ULSAN

Aug 2015 | South Korea

AF-1 Full Tuition Scholarship

Cum. GPA: 4.3 / 4.5

BS ELECTRONIC ENGINEERING

IUI

June 2012 | Pakistan

4-year fully funded national scholarship

Cum. GPA: 3.67 / 4.00

COURSEWORK

GRADUATE

Machine Learning

Physics-based Simulations

Advanced Signal Processing

Parallel Computing

Information Theory

UNDERGRADUATE

Image Processing

VLSI Design

Circuit Design

FPGA-based Design

Embedded Design

SKILLS

PROGRAMMING

Extensive experience with:

Python • Java • C • Matlab

TensorFlow • PyTorch

AWS Cloud tools • Git • Jira

LaTeX

WRITING

Selected Blog Posts:

Processing-in-memory [bit.ly/2YCPEuy]

Compressed Sensing [bit.ly/3olpfpZ]

Deep Learning Frameworks

[bit.ly/3olp4LI]

On Differential Equations

[bit.ly/2YS12mN]

EXPERIENCE

CALIAN | MACHINE LEARNING AND OPTIMIZATION SPECIALIST

March 2020 – Present | Saskatoon, SK

- Develop Calian's AI strategy, generate internal support and seek external projects
- Build a team of machine learning engineers and provide technical mentorship
- Develop ML-based solutions for mission-critical SatCom planning
- Oversee the development of production-grade machine learning systems

Featured on Calian's website: [bit.ly/2YD83rtD]

CALIAN | SOFTWARE DEVELOPER

Feb 2018 – Feb 2020 | Saskatoon, SK

- Contributed to the design, development and testing of Inmarsat Satellite Spectrum Monitoring System.
- Design of real-time dynamic resource optimization algorithms for GEO and MEO satellite constellations

UNIVERSITY OF SASKATCHEWAN | Co-LECTURER

Jan 2020 – May 2020 | Saskatoon, SK

CMPT 898: Deep Learning and Applications [bit.ly/3axBYXD]

- Contributed to curriculum development as this was a new course
- Contributed to setting the assignments and mid-term
- Prepared and delivered lectures (co-taught with Prof. Stavness)

UNIVERSITY OF SASKATCHEWAN | TEACHING ASSISTANT

Jan 2016 – Jan 2018 | Saskatoon, SK

I created and delivered weekly tutorials for the following courses

- Machine Learning (CMPT 820) [git.io/vMyBG]
- Mathematical Logic and Computing
- Developing Object Oriented Systems

RESEARCH

SELECTED PUBLICATIONS

- N. Khan and I. Stavness, "Pruning Convolutional Filters using Batch Bridgeout." IEEE Access (2020).
- N. Khan and I. Stavness, "Sparseout: controlling sparsity in deep networks." 32nd Canadian Conference on Artificial Intelligence (2019).
- N. Khan, J. Shah and I. Stavness, "Bridgeout: stochastic bridge regularization for deep neural networks." IEEE Access (2018).

TALKS

- "Hacking Neural Nets with PyTorch," Universiti Kuala Lumpur, Malaysia, November 6, 2019.
- "Reinforcement Learning," Young Researchers Conference in Mathematics and Statistics, Canada, June 8, 2017. [bit.ly/36z40Av]
- "Deep Neural Networks: Introduction, Architectures and Implementations," Dept. of CS, University of Saskatchewan, Canada, November 29, 2016. [bit.ly/3jcaFWq]