# TERGEL MUNKHBAT



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https://tergelmunkhbat.github.io/

#### SUMMARY

- Proficient in using TensorFlow and PyTorch for machine learning with two years of experience.
- Possesses five years of experience working with public clouds such as AWS and GCP, as well as private cloud technologies like OpenStack and Kubernetes.
- Successfully designed and implemented a graph-based and transformer-based model at HandPro LLC to translate sign language, resulting in the issuance of a patent.
- · Passionate about promoting machine learning and mathematics among young people in Mongolia, with an active presence as a YouTuber.

## **EDUCATION**

## KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY (KAIST)

Seoul, Korea

M.S. in Artificial Intelligence

09/2023 - Present

Advisor: Se-Young Yun

## NATIONAL UNIVERSITY OF MONGOLIA (NUM)

Ulaanbaatar, Mongolia 09/2012 - 06/2016

B.S. in Computer Networking

Advisor: Ganbayar Uuganbayar

## **PUBLICATIONS**

[C4] Enhancing the Reasoning Ability of Large Language Models through Meta-Reflection Tergel Munkhbat, Gihun Lee, Se-Young Yun KSC 2023

[C3] Improving scores of the NetHack Challenge by leveraging transformer architecture Tergel Munkhbat, Buseung Cho KICS 2023 Winter

[C2] Evaluation of BBRv2 and PCC Vivace algorithms over KREONet Tergel Munkhbat, Buseung Cho KNOM 2021

[C1] Evaluation of the Congestion Control Algorithms for High Performance Data Transfer over KREONet Tergel Munkhbat, Buseung Cho ICCC 2020

## **EXPERIENCE**

HAND PRO 03/2022 - Present

Research Advisor

- · Work as a part of an AI startup aimed at bridging communication gaps between hearing-impaired individuals and the general population in Mongolia using deep learning models.
- Designed and developed a graph-based and transformer-based model, resulting in a successful issuance of a patent.

#### KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY INFORMATION

09/2020 - 08/2023

Student Researcher

- Successfully integrated KISTI SENSE applications into the global SENSE infrastructure, ensuring seamless functionality and improved performance.
- Designed and developed a continuous and scalable flow collector utilizing Argus, Apache Hadoop, and Spark, resulting in improved data analysis and processing capabilities.

**UNITED ALLIANCE** 04/2020 - 07/2020

System Engineer

- Designed and implemented a robust hybrid cloud infrastructure, ensuring maximum uptime and availability.
- $\cdot \ \text{Leveraged Ansible automation to streamline daily tasks, resulting in increased efficiency and productivity.}$

FIBO CLOUD 03/2019 - 04/2020

Cloud Engineer

- Designed and implemented cloud infrastructure solutions based on OpenStack, resulting in the launch of Mongolia's first public cloud computing service in 2019 (https://cloud.mn/).
- Led the development of the cloud infrastructure solutions and oversaw the implementation process, ensuring the successful launch and continued operation of the public cloud computing service.
- Successfully retained capital within the country and provided a positive example for engineering students interested in working with emerging technologies.

**UNITEL GROUP** 06/2016- 03/2019

System Engineer

- Deployed a cloud infrastructure to support system reliability, successfully migrating all systems onto the new infrastructure.
- · Implemented automatic evacuation of failed instances in the event of hardware malfunctions or other errors, minimizing downtime and improving system availability.
- · Achieved high system availability through the cloud infrastructure, reducing both hardware and energy costs

## **TEACHING**

USCHOOL.MN 11/2021 - Present

Deep Learning Instructor

Instruct individuals on the fundamentals of neural network architectures such as Convolutional Neural Networks (CNNs), Recurrent Neural Networks (RNNs), and Transformers.

MELEARN.MN 07/2021 - Present

Mathematics and Machine Learning Instructor

Offer in-depth explanations of fundamental mathematical concepts related to neural networks and instruct individuals on topics ranging from the basics of neural networks to image generation (GANs) from scratch.

## **INVITED TALKS**

mnNOG 1 (Mongolian Network Operators' Group) How 5G relates to NFV technology 09/2019

## **CERTIFICATIONS**

TensorFlow Developer Certificate - Google 55590367	07/2022 - 07/2025
DeepLearning.Al TensorFlow Developer Professional Certificate - Coursera <i>QU2J6H77NG9V</i>	04/2022
Applications of AI for Predictive Maintenance - NVIDIA 9dd3aaabe13b40f397ee216f6a4e0462	01/2022
Applications of Al for Anomaly Detection - NVIDIA 5b3e0ba39a274c6c9aa10d5a0d2cd127	01/2022
Fundamentals of Deep Learning - NVIDIA a667a715e9b640778f88113effa610a8	01/2022

# **HONORS AND AWARDS**

- 1. 2nd prize International Academic and Research Activities Report Contest (2021)
- 2. National Computer Network Olympiad in Mongolia (2014-2019)
  - Gold medal (2016)
  - o Silver medals (2014, 2015, 2016, 2019)
  - o Bronze medals (2015, 2017)
- 3. Best Undergraduate Student National University of Mongolia (2016 Graduation Ceremony)
- 4. Top Performer Asia Pacific International NetRiders Competition (2016)
- 5. Winner International Friends Scholarship for Mongolia (2013-2014)

# LANGUAGE PROFICIENCY

Native speaker of Mongolian Professional in English with an IELTS score of 7/9 Conversational in Korean