

Rohit AGARWAL

@agarwal.102497@gmail.com

☎ (+47) 98423599

🐙 github.com/Rohit102497

in www.linkedin.com/in/Rohit102497

🔍 [google scholar](https://scholar.google.com/)

🌐 rohit102497.github.io/

INTERESTS

Scalable AI Models, Online Learning, Varying Feature Space, Time Series, Large Language Models

SKILLS

- Python, R, C++, LaTeX
- Docker, Azure
- PyTorch, Keras, Tensorflow, Sklearn, Pandas, Numpy
- Communication, Team Collaboration, Management

ACTIVITIES

Co-Supervisor: Aaron Celeste, Master Thesis, UiT ([Link](#)), 2022-23

Teaching Assistant:

Cloud and Big Data Technology in Fall 2021, 22, 23, 24;

Artificial Intelligence, AI - Methods and Applications in Spring 2023, 24

Reviewer: ICASSP 2024, [ICDEC 2023](#), Nordic Machine Intelligence 2023.

Program Committee: ICONIP 2023.

PUBLIC DISSEMINATION

Talk: "In-context Learning, Fine-tuning and RLHF in LLMs" at the [LLM Workshop](#), 28th Oct. 2023

Blogs: Challenges of early career researchers ([Link](#)); Why PhD: Self-contemplation ([Link](#))

Videos: [Mabnet](#); [Auxiliary Network](#)

OFFICE BEARER

Board Member, Digital Life Norway - [Junior Research Group](#), 2023-Present

Board Member, Tromsøstudentenes Idrettslag Volleyball, 2022-23.

General Sports Secretary, IIT (ISM) Dhanbad, 2018-19.

OTHERS

Visiting Researcher Grant, 3 Months Stay at NUS, Singapore, 2023

Runner-up, Digital Life Norway mini-MBA | [Certificate](#) 15-19 Apr 2024

Languages: English, Nepali, Bengali, Norwegian (beginner), Hindi (native)

EDUCATION

Doctor of Philosophy in Artificial Intelligence JUNE (2021–2025)

UiT The Arctic University of Norway, Tromsø

◇ Thesis Title: Scalable AI for modeling complex dynamic systems.

◇ Developing machine learning architectures and concepts to model varying feature space in online learning.

Integrated Master in Mathematics and Computing JUNE (2015–2020)

IIT (ISM), Dhanbad | [Degree](#) | [Gold Medalist](#)

GPA: 9.49/10

◇ [Thesis Title](#): Deep Learning for Streaming Classification.

◇ Proposed a deep learning model based on the hedge algorithm and online gradient descent to model dimension-varying inputs in online learning.

◇ Keywords: Python, Tensorflow, Keras, Multi-Layer Perceptron (MLP)

PUBLICATIONS

 TOTAL - 13 | JOURNAL - 3 | CONFERENCE - 4 | UNDER REVIEW - 4 | ARXIV - 2

Mentioning 4 first-author publications here. For the rest, see [google scholar](#).

packetLSTM: Dynamic LSTM Framework for Streaming Data with Varying Feature Space UNDER REVIEW (NEURIPS)

◇ Introduced a scalable recurrent neural network model capable of adapting to a varying feature space in an online learning setting and effectively mitigating catastrophic forgetting.

◇ Keywords: Python, PyTorch, RNN, LSTM, GRU, Varying Feature Space

Online Learning under Haphazard Input Conditions: A Comprehensive Review and Analysis UNDER REVIEW (TPAMI) | [CODE](#)

◇ Comprehensive models and dataset categorization, accompanied by extensive benchmarking and promoting open-source resources.

◇ Keywords: Python, Pytorch, Varying Feature Space, Numpy, Sklearn

Aux-Drop: Handling Haphazard Inputs in Online Learning Using Auxiliary Dropouts JOURNAL | [CODE](#) | TMLR 2023

◇ Proposed a novel concept that imparts scalability to any online deep learning architectures, enabling them to handle dimension-varying input streams in an online learning setting.

◇ Keywords: Python, PyTorch, Online Learning, Varying Feature Space, MLP

MABNet: Master Assistant Buddy Network with Hybrid Learning for Image Retrieval CONFERENCE | [CODE](#) | ICASSP 2023

◇ Introduced a hybrid learning network comprising two blocks, where one operates under supervised learning and the other under self-supervised learning, improving the decision boundary.

◇ Keywords: Python, PyTorch, Computer Vision, ViT, ResNet, Supervised Learning, Self-Supervised Learning

WORK EXPERIENCE

Visiting Researcher, NUS, Singapore. MAY–AUGUST 2023

◇ Performed in-depth analysis of haphazard inputs. Implemented all the non-open-sourced models and established datasets and models taxonomy.

◇ Keywords: Python, PyTorch, TDigest, Numpy, Sklearn.

Software Engineer, Adobe, Bangalore, India. AUG 2020–MAY 2021

◇ Part of the internal cloud operations team of Adobe, dealing with deploying various applications and day-to-day operations.

◇ Keywords: Kubernetes, AWS, Azure, Puppet, Terraform, Ansible, Chef, CI/CD.

Intern, Adobe, Bangalore, India. | [Certificate](#) MAY–JULY 2019

◇ Cloud storage prediction of enterprises and individual customers of Adobe.

◇ Keywords: Python, Keras, Tensorflow, ARIMA, LSTM, Encoder Decoder.