

Tung Nguyen

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RESEARCH INTEREST

My research aims to develop large-scale foundation models in scientific domains, with a particular focus on tackling climate change and sustainability domains.

EDUCATION

University of California, Los Angeles (UCLA)

Ph.D. in Computer Science

California, USA

Sep 2021 – Present

- Advisor: Aditya Grover
- GPA: 3.89 / 4.00

Hanoi University of Science and Technology (HUST)

Bachelor in Computer Science

Hanoi, Vietnam

Aug 2015 – Jul 2020

- Thesis: Predictive Coding for Locally-Linear Control
- GPA: 3.65/4.00 (top 1%), graduated with Excellent Degree

RESEARCH EXPERIENCE

Student Researcher

Google Deepmind

Jun 2024 – Oct 2024

New York, USA

- Mentor: Xingyou (Richard) Song
- Research Topic: Universal Regression-Guided Search via LLM Embeddings

Research Intern

Microsoft Research – Autonomous Systems Group

Jun 2022 – Sep 2022

Seattle, USA

- Mentor: Ashish Kapoor
- Research Topic: General-purpose Pretraining for Weather and Climate Modeling

AI Research Resident

VinAI Research

May 2019 – Jul 2021

Hanoi, Vietnam

- Supervisor: Hung Bui
- Research Topic: Representation Learning for Planning in Latent Space

Research Student

Data Science Laboratory (DSLAb), HUST

May 2018 – May 2019

Hanoi, Vietnam

- Supervisor: Khoat Than
- Research Topic: Life-long Learning for Statistical Models

PUBLICATIONS ([GOOGLE SCHOLAR](#))

LICO: Large Language Models for In-Context Molecular Optimization

Tung Nguyen, Aditya Grover

International Conference on Learning Representations (ICLR 2025)

Probing the Decision Boundaries of In-context Learning in LLMs

Siyan Zhao, Tung Nguyen, Aditya Grover

Conference on Neural Information Processing Systems (NeurIPS 2024)

Best Paper Award, Foundation Model Interventions Workshop, NeurIPS 2024.

ChaosBench: A Multi-Channel, Physics-Based Benchmark for Subseasonal-to-Seasonal Climate Prediction

*Juan Nathaniel, Yongquan Qu, **Tung Nguyen**, Sungduk Yu, Julius Busecke, Aditya Grover, Pierre Gentine*

Conference on Neural Information Processing Systems (NeurIPS 2024)

Scaling transformer neural networks for skillful and reliable medium-range weather forecasting

***Tung Nguyen**, Rohan Shah, Hritik Bansal, Troy Arcomano, Sandeep Madireddy, Romit Maulik, Veerabhadra Kotamarthi, Ian Foster, Aditya Grover*

Conference on Neural Information Processing Systems (NeurIPS 2024)

Best Paper Award, Tackling Climate Change with Machine Learning Workshop, ICLR 2024.

ExPT: Synthetic Pretraining for Few-Shot Experimental Design

***Tung Nguyen**, Sudhanshu Agrawal, Aditya Grover*

Conference on Neural Information Processing Systems (NeurIPS 2023)

ClimateLearn: Benchmarking Machine Learning for Weather and Climate Modeling

***Tung Nguyen**, Jason Kyle Jewik, Hritik Bansal, Prakhar Sharma, Aditya Grover*

Conference on Neural Information Processing Systems (NeurIPS 2023)

ClimaX: A Foundation Model for Weather and Climate

***Tung Nguyen**, Johannes Brandstetter, Ashish Kapoor, Jayesh K. Gupta*, Aditya Grover**

International Conference on Machine Learning (ICML 2023)

Best Paper Award, Synergy of Scientific and Machine Learning Modeling Workshop, ICML 2023.

Transformer Neural Processes: Uncertainty-Aware Meta Learning Via Sequence Modeling

***Tung Nguyen**, Aditya Grover*

International Conference on Machine Learning (ICML 2022)

Temporal Predictive Coding for Model-based Planning in Latent Space

Tung Nguyen, Rui Shu*, Tuan Pham*, Hung Bui, Stefano Ermon*

International Conference on Machine Learning (ICML 2021)

Predictive Coding for Locally-Linear Control

Rui Shu, **Tung Nguyen***, Yinlam Chow, Tuan Pham, Khoat Than, Mohammad Ghavamzadeh, Stefano Ermon, Hung Bui*

International Conference on Machine Learning (ICML 2020)

Infinite Dropout for training Bayesian models from data streams

*Son Nguyen, **Tung Nguyen**, Linh Ngo, Khoat Than*

IEEE International Conference on Big Data (IEEE Big Data 2019)

PREPRINTS

Predict from Strings: Language Model Embeddings for Bayesian Optimization

2024

***Tung Nguyen**, Qiuyi Zhang, Bangding Yang, Chansoo Lee, Jorg Bornschein, Sagi Perel, Yutian Chen, Xingyou Song*

MedMax: Mixed-Modal Instruction Tuning for Training Biomedical Assistants

2024

*Hritik Bansal, Daniel Israel, Siyan Zhao, Shufan Li, **Tung Nguyen**, Aditya Grover*

ClimDetect: A Benchmark Dataset for Climate Change Detection and Attribution

2024

Sungduk Yu, Brian L. White, Anahita Bhiwandiwalla, Musashi Hinck, Matthew Lyle Olson, Tung Nguyen, Vasudev Lal

WORKSHOP PAPERS

Reliable conditioning of behavioral cloning for offline reinforcement learning

Tung Nguyen, Qingqing Zheng, Aditya Grover

Foundation Models for Decision Making Workshop, NeurIPS 2022

HONORS AND AWARDS

Outstanding Graduate Student Research Award

2024

Department of Computer Science, UCLA

4 graduate students from the Department of Computer Science are selected each year as winners of the Outstanding Graduate Student Research Award.

Amazon Student Doctoral Fellowship

2022-2023

Department of Computer Science, UCLA

12 doctoral students who work in AI are selected as Amazon fellows each year. Amazon fellows receive full funding for one academic year to pursue independent research projects.

Best Undergraduate Thesis Award

Jul 2020

School of Information and Communication Technology, HUST

The best thesis was selected among over 400 undergraduate theses in the Fall Semester, 2020.

ACADEMIC SERVICES

Reviewer

ICML (2021, 2022, 2023, 2024, 2025), Neurips (2021, 2022, 2024), ICLR (2022, 2024, 2025)

Technical Talk

Dec 2023

AGU Annual Meeting 2023 – website: <https://www.agu.org/fall-meeting>

- Present ClimaX at AGU23 - the largest gathering of Earth and space scientists with 25,000+ attendees from 100+ countries annually.

Teaching Assistant

Jan 2024 – Mar 2024

CS261 Deep Generative Models – UCLA

- Hold discussion sections and office hours.

Teaching Assistant

Sep 2022 – Dec 2022

CS161 Fundamentals of Artificial Intelligence – UCLA

- Hold discussion sections and office hours.