



Personal website

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Thang Duong

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RESEARCH INTERESTS

Bandits, Reinforcement learning, Meta-learning, Representation learning, and Transfer learning.

EDUCATION

The University of Arizona - Computer Science Department

Tucson, Arizona

PhD Student

Aug 2022 - Now

- **Sequential Multitask Representation Transfer in Bandit**, supervised by Prof. Chicheng Zhang

Hanoi University of Science and Technology

Hanoi, Vietnam

B.S.E in Mechatronics Engineering, Advanced Program

GPA: 3.07/4.00 (Top 5% of the program)

VinAI Research

Hanoi, Vietnam

AI Research Resident

July 2019 - June 2022

- **Meta-Reinforcement Learning and Bandits**, supervised by Dr. Yasin Abbasi-Yadkori and Dr. Tung Pham
- **Active Learning and Domain Adaptation**, supervised by Dr. Toan Tran, Dr. Trung Le, and Prof. Dinh Phung
- **Sim-to-Real Data Augmentation**, supervised by Dr. Rang Nguyen

PUBLICATIONS

Beyond task diversity: Provable representation transfer for sequential multi-task linear bandits

Thang Duong, Zhi Wang, Chicheng Zhang

NeurIPS 2024: [Paper] [Github]

Non-stationary Bandits and Meta-Learning with a Small Set of Optimal Arms

MJ Azizi, T Duong, Yasin Abbasi-Yadkori, András György, Claire Vernade, M. Ghavamzadeh

RLC 2024 Conference: [Paper] [5 mins summary] [Github]

Association Of Mri-defined Structure Features At Baseline With Knee Pain Trajectories

S. Liu, X. Sun, Y. Ge, Thang Duong, C.K. Kwok

ACR Convergence 2024: [Paper]

OTHER RESEARCH EXPERIENCE

Precision Mechanical and Optical Engineering Department - HUST

Hanoi, Vietnam

Project lead

Jan 2018 - June 2019

- (PRESM 2019 conference) Deep Regression for precise geometric dimension measurement
- (INISCOM 2018 conference and Thesis) Analyzing seismic signal using SVM for vehicle motion detection

National Chung Cheng University

Chiayi, Taiwan

Intern

June 2016

- Summer Internship: 3D scanner calibration

Sun Moon University

Asan, South Korea

Intern

July 2015

- Summer Internship: ECG signal processing and Robot Control Programming

WORK EXPERIENCE

The University of Arizona - Computer Science Department

Graduate Assistant

Tucson, Arizona

August 2022 - Now

- Teaching Assistant for CSC 445: Introduction to Algorithms and CSC 296: Introduction to Artificial Intelligence.
- Research Assistant.

VinAI Research

Junior Engineer

Hanoi, Vietnam

July 2019 - Dec 2019

- Developed the front-end for the 3D Face Reconstruction demo at NeurIPS 2019 (Android, OpenGL 2.0)

NAL Vietnam JSC

AI Team leader, Scrum master

Hanoi, Vietnam

May 2018 - June 2019

Managing a team of six members to deliver multiple products:

- Chatops: <https://chatops.jp/en/>
- Facial recognition, Vietnamese Text2Speech and Speech2Text
- Other Proof-of-Concept projects: OCR, Defect detection, Grammar correction, etc.

FPT Software

Technical leader

Hanoi, Vietnam

Apr 2017 - Sep 2017

Lead a team of three members to make multiple proof-of-concept projects

- R&D project: Application using OpenCV object detection and tracking on smart phone in a cross-platform app with Xamarin

Hanoi University of Science and Technology

Student

Hanoi, Vietnam

July 2015 - June 2018

- Embedded system projects & science fair: public lighting system using Solar energy (Arduino)

Certificates

TOEFL

Overall: 107 - Reading: 30, Listening: 30, Writing: 26, Speaking: 21

Nov 2021

GRE

Quantitative: 169, Verbal: 156, Analytical Writing: 4.0

Oct 2021

Erasmus full scholarship

Exchange program to Universitat Politècnica de València

Valencia, Spain

Sep 2016 - Jan 2017

PROJECTS

Bandit Meta Learning: Increasing the optimization's efficiency by exploiting the shared structure between multiple instances of an online-learning problem.

Active Domain Adaptation: Adapting from Source to Target Domain using Active Learning

to warm-start and improve baseline algorithms.

Sim-to-Real Data Augmentation: a hierarchical model to generate adverse weather images from the CARLA simulation for different Autonomous Driving tasks. This helps disentangle the content and style more effectively than some baselines.

REFERENCES

Professor. Chicheng Zhang

University of Arizona

✉ chichengz@cs.arizona.edu

Professor. Mai Nguyen Thi Phuong

Hanoi University of Science and Technology

✉ mai.nguyenthiphuong@hust.edu.vn

Dr. Yasin Abbasi-Yadkori

Senior Research Scientist at Deepmind

✉ yadkori@google.com

Dr. Tung Pham

VinAI Research Scientist

✉ v.tungph4@vinai.io