Thang Chu

chuducthang77.github.io Last updated : December 2024

EDUCATION

University of Alberta

Edmonton, AB

Master of Science (Thesis-based) in Computing Science - Advised by Prof. Csaba Szepesvári

Jan. 2024 - Present

Email: thang@ualberta.ca

• Relevant courses: AI Logics, Machine Learning, Probabilistic Graphical Model, Decision Making under Uncertainty; GPA: 4.0

University of Alberta

Edmonton, AB

Bachelor of Science in Computing Science

Sep. 2019 - Apr. 2023

 Relevant courses:: Reinforcement Learning, Machine Learning, Data Mining, Computer Vision, Natural Language Processing, Data Science, AI Capstone, Numerical Methods, Stochastic Process, Mathematical Statistics.; GPA: 3.96

RESEARCH EXPERIENCE

Carlenton University

Ottawa, ON

Research Assistant - Advised by Prof. Junfeng Wen

Oct 2022 - Present

- Actor-critic bi-level optimization: Develop a new training strategy to accelerate the convergence rate of actor-critic algorithm.
- Soft actor-critic asymptotic and non-asymptotic convergence rate: Develop a new theoretical framework to prove the convergence rate and optimality of soft actor-critic algorithms.

University of Alberta

Edmonton, AB

Research Assistant - Advised by Prof. Martha White

May 2022 - Sep 2022

• **Kernel representation of Gaussian Process**: Characterized the difference between Gaussian Process and Bayesian Linear Regression with different parameterizations.

National Economic University

Hanoi, Vietnam

Research Assistant - Advised by Nguyen Thanh Tuan

January 2021 - Sep 2022

• Graph Transformer for predicting drug response: Applied Graph Transformer algorithms and T-SNE to enhance drug features' extraction. Achieved 93% Pearson correlation coefficient on the benchmark.

PUBLICATIONS

• Graph Transformer for Drug Response Prediction: Chu T, Nguyen TT, Hai BD, Nguyen QH, Nguyen T. Graph Transformer for Drug Response Prediction. IEEE/ACM Trans Comput Biol Bioinform. 2023 Mar-Apr;20(2):1065-1072. doi: 10.1109/TCBB.2022.3206888. Epub 2023 Apr 3. PMID: 36107906.

Projects

• **JATT**: Build a SVM-based classifier to predict whether the patients have a large vessel occlusion or not using Pytorch with 90% accuracy.

TEACHING EXPERIENCE

- CMPUT 267: Basics of Machine Learning (University of Alberta): Marked the assignments, conducted office hours, monitored forums for Q&A, created tutorials.
- CMPUT 469: AI Capstone (University of Alberta): Lead TA, created quizzes, mentored and evaluated the performance of multiple student groups.
- Deep Learning (National Economic University): Created assignments, created a Kaggle competition for course project, marked the exam, hosted lab sessions.
- SU Tutor: Tutored students on mathematics, statistics, and computing science courses.
- Cohere AI: Organized bi-weekly Reinforcement Learning and Machine Learning theory reading group.

AWARDS

- Dean's Honor Roll Fall/Winter: 2019/2020/2021/2022
- $\bullet \ \, \textbf{International Student Scholarship:} \ \, 2019/2020/2021/2022 \\$
- Faculty of Science Gold Standard Scholarship: 2019
- University of Alberta Maple Leaf First Year Excellence Scholarship: 2019
- Dean's Silver Medal in Science: 2023

SKILLS

- Languages: Python, Julia, SQL, C/C++, Java, Matlab, R
- Frameworks: Pytorch, Pandas, NumPy
- Technologies: Git, Weight and Biases