MINH H. PHAM

https://minhhpham.github.io

QUALIFICATION SUMMARY

- Ph.D. Candidate in Computer Science, Master's Degree in Statistics (2018)
- Winner of the 2021 IEEE Big Data Cup Challenge in Reinforcement Learning
- Runner up of the eBay 2022 University Machine Learning Competition
- 2 years of working experience as system administrator for a high-performance computing cluster
- Ph.D. concentration in parallel processing, GPGPU, and database

EDUCATION

University of South Florida, Tampa, FL 5/2024
- Ph.D. in Computer Science (GPA 4.0)

University of South Florida, Tampa, FL 5/2018
- Master of Arts in Statistics (GPA 3.97)
- Thesis: Signal Detection of Adverse Drug Reaction using the Adverse Event Reporting System: Literature Review and Novel Methods

University of South Florida, Tampa, FL 5/2016
- Bachelor of Arts in Statistics (GPA 3.97, USF Dean's List, Honor College, and Summa Cum Laude)

WORKING EXPERIENCE

PhD Intern, Meta – Menlo Park, CA 5/2022 – 8/2022
- Query optimization for Presto distributed query engine by using machine learning
- Testing showed average saving of 7% in CPU time and 4% wall time across all queries

Graduate Assistant, University of South Florida– Tampa, FL 8/2019 – Now
- System administrator for a high-performance computing cluster
- Develop web servers (back-end and front-end)

Research Assistant, Center for Urban Transportation Research – Tampa, FL 5/2018 – 5/2019
- Archive real-time transit data into MongoDB
- Predict arrival time with machine learning

Actuarial Intern, Metlife – Bridgewater, NJ 5/2016 – 12/2016

SOFTWARE

Dynamic Memory Management on CUDA	https://github.com/minhhpham/parallel-GPU-memory-management
Credit Card Approval Chance	https://minhhpham.github.io/credit-cards
Wastewater Management Web Application	https://wastewater.csee.usf.edu/
Pharmacovigilance Algorithms	https://github.com/minhhpham/MultiPharma
NGS short-read aligner implementation	https://github.com/minhhpham/bwa

PUBLICATIONS

Conference

Minh Pham, Hao Li, Yongke Yuan, Chengcheng Mou, Kandethody Ramachandran, Zichen Xu, and Yicheng Tu. 2022. Dynamic memory management in massively parallel systems: a case on GPUs. In Proceedings of the 36th ACM International Conference on Supercomputing (ICS '22).

M. Pham, H. Nguyen, L. Dang, J.A. Nieves (2021). Compressive Features in Offline Reinforcement Learning for Recommender Systems. *IEEE International Conference on Big Data 2021*.

J. Adorno Nieves, **M. Pham,** S. Barbeau, A. Labrador (2019). Scalable Real-Time Transit Data Archiving: A Framework for Performance Assessment and Machine Learning Prediction. In *Transportation Research Board Conference Proceedings* (No. 55)

M. Pham, J. Lin, and Y. Zhang, "Diagnose Voice Disorder with Machine Learning," In *IEEE International Conference on Big Data*, 2018.

Journal

M. Pham, F. Cheng, and K. Ramachandran, "A Comparison Study of Algorithms to Detect Drug–Adverse Event Associations: Frequentist, Bayesian, and Machine-Learning Approaches," *Drug Safety*, vol. 42, no. 6, pp. 743–750, 2019.

Y. Lu, A. Ramachandra, **M. Pham**, Y.-C. Tu, and F. Cheng, "CuDDI: A CUDA-Based Application for Extracting Drug-Drug Interaction Related Substance Terms from PubMed Literature," *Molecules*, vol. 24, no. 6, p. 1081, 2019.

Z. Tang, **M. Pham**, Y. Hao, F. Wang, D. Patel, L. Jean-Baptiste, L. Fan, W. Wang, Y. Wang, and F. Cheng, "Sex, Age, and BMI Modulate the Association of Physical Examinations and Blood Biochemistry Parameters and NAFLD: A Retrospective Study on 1994 Cases Observed at Shuguang Hospital, China," *BioMed Research International*, 2019.

Y. Hao, F. Cheng, **M. Pham**, H. Rein, D. Patel, Y. Fang, Y. Feng, J. Yan, X. Song, H. Yan, and Y. Wang, "A Noninvasive, Economical, and Instant-Result Method to Diagnose and Monitor Type 2 Diabetes Using Pulse Wave: Case-Control Study," *JMIR mHealth and uHealth*, vol. 7, no. 4, 2019.

M. H. Pham, C. Tsokos, and B.-J. Choi, "Maximum Likelihood Estimation for the Generalized Pareto Distribution and Goodness-of-Fit Test with Censored Data," *Journal of Modern Applied Statistical Methods*, vol. 17, no. 2, 2019.

Thesis

M. H. Pham. (2018). *Signal Detection of Adverse Drug Reaction using the Adverse Event Reporting System: Literature Review and Novel Methods*.

INVITED REVIEWER FOR:

- IEEE Transactions on Intelligent Transportation Systems
- Scientific Reports by Nature
- Clinical Drug Investigation by Springer

PROGRAMMING SKILLS

- C/C++, CUDA: for all research projects
- Python: for all machine learning/data mining projects

AWARDS & HONORS

- 2021 IEEE Big Data Cup Challenge: 1st place out of 22 teams 9/2021
- 2018 IEEE Big Data Cup Challenge: 8th place out of 109 teams from 27 countries 11/2018

LEADERSHIPS & ACTIVITIES

- **Web Chair**, IEEE International Conference on Data Mining 2021
- **Web Chair**, International Conference on Scientific and Statistical Database Management 2021
- **President**, Actuarial Society at USF 12/2014 – 5/2016