TUAN DUNG (JOSH) NGUYEN

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EDUCATION

The Australian National University
March 2021 –
Master of Philosophy – MPhil in Computer Science
Canberra, ACT, Australia
Supervisor: Lexing Xie and Colin Klein

The University of Melbourne
February 2018 – December 2020
Bachelor of Science in Computer Science
Melbourne, VIC, Australia
First Class Honours

EXPERIENCE

Summer Research Scholar
December 2020 – March 2021
Computational Media Lab, the Australian National University
Canberra, ACT, Australia

· Supervisors: Lexing Xie and Colin Klein

Tutor and Demonstrator
March 2020 –

· Elements of Data Processing (COMP20008, UniMelb)
· Artificial Intelligence (COMP30024, UniMelb)
· Optimisation (COMP4691, ANU)
· Machine Learning and Data Mining (COMP5318, USyd)
· Statistical Machine Learning (COMP4670, ANU)

Research Intern
July 2020 – August 2020
University of Sydney
Sydney, NSW, Australia

· Supervisor: Dr. Nguyen Tran
· Part of the Winter Research Internship Program
· Project: *Personalized Federated Learning with Moreau Envelopes*

Summer Research Scholar
December 2019 – February 2020
University of Sydney Faculty of Engineering
Sydney, NSW, Australia

· Supervisor: Dr. Nguyen Tran
· Part of the Summer Research Program
· Project: *Federated Learning with Stochastic Variance Reduced Gradient Algorithms*

Vacation Research Scholar
November 2019 – December 2019
Melbourne School of Mathematics and Statistics
Melbourne, VIC, Australia

· Supervisor: Dr. Charl Ras
· Part of the School of Mathematics and Statistics Vacation Research Program
· Project: *Analysing and Designing R-Resilient Graphs*

AWARDS AND ACHIEVEMENTS

- Master of Philosophy Scholarship Tuition and Stipend Scholarships, ANU (2021)
- Dean's Honour List, UniMelb (2019 – 2021, top 1.5% of the BSc. cohort)
- Housing Bursary, UniMelb (2020)
- Research Scholarship, Faculty of Engineering, USyd (2020)
- Studentship, School of Mathematics and Statistics, UniMelb (2019)

PUBLICATIONS

[1] Canh T. Dinh, Nguyen H. Tran, and Tuan Dung Nguyen. "Personalized Federated Learning with Moreau Envelopes". In: *Advances in Neural Information Processing Systems 33*. 2020, pp. 21394–21405.

[2] Canh T. Dinh, Nguyen H. Tran, Tuan Dung Nguyen, Wei Bao, Albert Y. Zomaya, and Bing B. Zhou. "Federated Learning with Proximal Stochastic Variance Reduced Gradient Algorithms". In: *49th International Conference on Parallel Processing*. 2020, pp. 1–11.

[3] Tuan Dung Nguyen, Amir R. Balef, Canh T. Dinh, Nguyen H. Tran, Duy T. Ngo, Tuan Anh Le, and Phuong L. Vo. "Accelerating Federated Edge Learning". In: *IEEE Communications Letters* 25.10 (2021), pp. 3282–3286.

[4] Canh T. Dinh, Nguyen H. Tran, Tuan Dung Nguyen, Wei Bao, Amir Rezaei Balef, Bing B. Zhou, and Albert Y. Zomaya. "DONE: Distributed Approximate Newton-type Method for Federated Edge Learning". In: *IEEE Transactions on Parallel and Distributed Systems* 33.11 (2022), pp. 2648–2660.

[5] Tuan Dung Nguyen, Georgiana Lyall, Alasdair Tran, Minjeong Shin, Nicholas George Carroll, Colin Klein, and Lexing Xie. "Mapping Topics in 100,000 Real-Life Moral Dilemmas". In: *Proceedings of the International AAAI Conference on Web and Social Media* 16.1 (2022), pp. 699–710.

EXTRACURRICULARS

Monash International School in AI and its Applications in CS *Student*	2021
Cornell, Maryland and Max Planck Research School *Student*	2021
UniMelb Competitive Programming Club *Secretary*	2019 – 2020
UniMelb Mathematics and Statistics Society *Undergraduate Representative*	2019 – 2020
UniMelb Internet of Things Club *Marketing and Events Director*	2018 – 2020
UniMelb Student Union *Volunteer*	2018 – 2020