

TUAN DUNG (JOSH) NGUYEN

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EDUCATION

The Australian National University

Master of Philosophy – MPhil in Computer Science

Supervisor: Lexing Xie and Colin Klein

March 2021 –

Canberra, ACT, Australia

The University of Melbourne

Bachelor of Science in Computer Science

First Class Honours

February 2018 – December 2020

Melbourne, VIC, Australia

EXPERIENCE

Summer Research Scholar

Computational Media Lab, the Australian National University

December 2020 – March 2021

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)
- Advanced Topics in Machine Learning (COMP4680, ANU)
- Document Analysis (COMP4650, ANU)

Research Intern

University of Sydney

July 2020 – August 2020

Sydney, NSW, Australia

- Supervisor: Dr. Nguyen Tran
- Project: *Personalized Federated Learning with Moreau Envelopes*

Summer Research Scholar

University of Sydney Faculty of Engineering

December 2019 – February 2020

Sydney, NSW, Australia

- Supervisor: Dr. Nguyen Tran
- Project: *Federated Learning with Stochastic Variance Reduced Gradient Algorithms*

Vacation Research Scholar

Melbourne School of Mathematics and Statistics

November 2019 – December 2019

Melbourne, VIC, Australia

- Supervisor: Dr. Charl Ras
- 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, **Nguyen, Tuan Dung**, 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.
- [2] **Nguyen, Tuan Dung**, 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.
- [3] **Nguyen, Tuan Dung**, 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, and **Nguyen, Tuan Dung**. “Personalized Federated Learning with Moreau Envelopes”. In: *Advances in Neural Information Processing Systems* 33. 2020, pp. 21394–21405.
- [5] Canh T. Dinh, Nguyen H. Tran, **Nguyen, Tuan Dung**, 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.

EXTRACURRICULARS

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