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)

Research Intern
University of Sydney

July 2020 – August 2020
Sydney, NSW, Australia

· Supervisor: Dr. Nguyen Tran
· Part of the Winter Research Internship Program
· 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
· Part of the Summer Research Program
· 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
· 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)

TECHNICAL SKILLS

Programming/Scripting Languages	C/C++, Python, Java, LaTeX, MATLAB
Numerical and Learning Packages	PyTorch, TensorFlow, scikit-learn, numpy, pandas
Frameworks and Tools:	Git
Databases	MySQL

LEADERSHIP EXPERIENCE

UniMelb Competitive Programming Club (UMCPC)   2019 – 2020
· Position: Secretary

UniMelb Mathematics and Statistics Society (MUMS)   2019 – 2020
· Position: Undergraduate Representative

UniMelb Internet of Things Club   2018 – 2020
· Positions: Marketing Director (2019) and Events Director (2020)

UniMelb Student Union   2018 – 2020
· Host at the Orientation Week Program
· Tutor at the VCE Summer School

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.