

# Xuan Phi Nguyen

🌐 [linkedin.com/in/xuanphinguyen](https://www.linkedin.com/in/xuanphinguyen)

✉ [nxphi47@gmail.com](mailto:nxphi47@gmail.com)

☎ +65 8878 6994

## Research Papers

---

- Xuan-Phi Nguyen, Shafiq Joty, Wu Kui & Aw Ai Ti (2020). *Multi-Agent Cross-Translated Diversification for Unsupervised Machine Translation*. arXiv preprint arXiv:2006.02163.
- Xuan-Phi Nguyen, Shafiq Joty, Steven Hoi & Richard Socher (2020). *Tree-Structured Attention with Hierarchical Accumulation*. In International Conference on Learning Representations (ICLR 2020).
- Xuan-Phi Nguyen\*, Thanh-Tung Nguyen\*, Shafiq Joty & Xiaoli Li (2020). *Differentiable Window for Dynamic Local Attention*. In Proceedings of the Association for Computational Linguistics (ACL 2020).
- Thanh-Tung Nguyen, Xuan-Phi Nguyen, Shafiq Joty & Xiaoli Li (2020). *Efficient Constituency Parsing by Pointing*. In Proceedings of the Association for Computational Linguistics (ACL 2020).
- Xuan-Phi Nguyen, Shafiq Joty, Wu Kui & Aw Ai Ti (2019). *Data Diversification: An Elegant Strategy For Neural Machine Translation*. arXiv preprint arXiv:1911.01986.
- Xuan-Phi Nguyen & Shafiq Joty (2019). *Phrased-based Attentions*. arXiv preprint arXiv:1810.03444.
- P. X. Nguyen, Z. Lu, W. Huang, S. Huang, A. Katsuki & Z. Lin (2019). *Medical image segmentation with stochastic aggregated loss in a unified U-Net*. In 2019 IEEE EMBS International Conference on Biomedical Health Informatics (BHI) (IEEE BHI 2019), Chicago, USA.

## EXPERIENCE

---

### Salesforce AI Research Asia

Singapore

*NLP Research Intern*

May 2019 – Aug 2019

- Research on different aspects of linguistic structures languages on the performances of neural architectures on various natural language processing tasks. Propose new state-of-the-art methods and write papers submitted to machine learning and NLP conferences.

### Natural Language Processing Group, Nanyang Technological University

Singapore

*Research Assistant*

Mar 2018 – May 2019

- Research on different limitations and improvements on Neural Machine Translation, such as document-level machine translation, discourse phenomena, phrase-based, parsing-tree-based and unsupervised neural machine translation.
- Write papers submitted to various machine learning and NLP conferences, e.g: ICLR, ACL, EMNLP.

### Visa Worldwide Pte Limited (Visa Inc.)

Singapore

*Software Engineer Intern*

May 2017 – Jul 2017 and Jan 2018 – Jul 2018

- Developed a novel lightweight character-level convolutional neural network to perform scripted text classification tasks at up to 98% accuracy while consuming 1000 times less resources and achieving 10 times faster training time than standard deep models. Developed production-level code to deploy the models.

### Panasonic Research and Development Center Singapore

Singapore

*Software Engineer Intern*

May 2016 – Jul 2016

- Researched and cooperated to develop a new machine learning algorithm based on Support Vector Machine to classify electrical signals, achieving 94% of experimental accuracy. Assisted to design a Raspberry Pi robot for collecting sensor signals and communicating with server to manipulate a real car's system. Real-time accuracy reached 83.8%.

## EDUCATION

---

### Nanyang Technological University

Singapore

*Doctor of Philosophy in Computer Science & Artificial Intelligence.*

*Expected Graduation: July 2023*

### Nanyang Technological University

Singapore

*Bachelor in Electrical & Electronics Engineering. CGPA: 4.87/5.00 (First Class)*

*Graduation: July 2019*

- **Twice Dean's List Awards** – Top 5% of cohort on academic performance, AY 2016/2017 - AY 2017/2018.
- Undergraduate Research Experience on CAmpus (URECA) Project: built a "Mobile Visual Search Engine" application.
- **Final Year Project:** Research on medical image segmentation with deep learning.

## HONORS & AWARDS

---

### A\*STAR Computing and Information Science (ACIS) Scholarship

Jul 2019 – Jul 2023

- Fully funded by A\*STAR to pursue the doctorate program in NTU, Singapore.

### The Global Undergraduate Awards - Highly Commended Paper

Sep 2019

- Top 10% out of more than 3500 papers submitted globally.

**Shopee - IET Machine Learning Challenge Competition - 2<sup>nd</sup> Runner-up***Mar 2018*

- Designed ensemble techniques to achieve 2<sup>nd</sup> Runner-up prize with 85.662% accuracy in image classification task.

**SUTD What The Hack Hackathon - Best Software Hack - Best Security Hack***Sep 2017*

- Eye Gesture Control Application: VR device powered by neural networks to help the disabled to perform daily tasks.

**Singapore Scholarship***Jul 2015 – Jul 2019*

- Fully funded by Ministry of Foreign Affairs of Singapore to pursue the undergraduate program in NTU, Singapore.

## SKILLS PROFILE

---

- Deep learning, Machine learning research
- Tensorflow, Pytorch, Keras, L<sup>A</sup>T<sub>E</sub>X
- Python, Angular 4, NodeJS, MongoDB, Django
- Familiar with Linux & UNIX-like system