Wang Boxiang
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EDUCATION

Nanyang Technological University (NTU)   Aug 2018 – ***May 2022*** (Expected)
- **Bachelor of Engineering (Electrical and Electronic Engineering);** Minor Study: Mathematics
- **Honours (Highest Distinction)** (Expected), current CGPA: 4.90 / 5.00
- **Dean's List Student Award**, NTU (**top 5%**) 2019 - 2020, 2020 - 2021
- Relevant Modules: (1) *Introduction to Data Science & Artificial Intelligence* (2) *Computer Communications* (3) *Data Structure and Algorithms* (4) *Introduction to Operating Systems*

Overseas Summer Session Program, University of California, Los Angeles   Jun 2019 – Aug 2019
- Gained new perspectives and insights into America economic issues through discussions in class

PUBLICATION

- **Boxiang Wang***, Qifan Xu*, Zhengda Bian and Yang You. Tesseract: Parallelize the tensor parallelism efficiently. *arXiv preprint arXiv:2005.14500* [link]

ACADEMIC & MODULE PROJECT / RESEARCH EXPERIENCE

National University of Singapore   May 2021 – Present
Research Assistant to Prof. Yang You
- Design novel tensor parallelism structures for deep learning neural networks to reduce the memory allocated to single processor and to increase the efficiency
- Reach a speedup of 1.5X compared to state-of-the-art tensor parallelism structure
- Design an integrated large-scale model training framework with efficient parallelization techniques

NTU Final Year Project (FYP)   Aug 2021 – Present
FYP Project: ***Unsupervised Domain Adaptation for Object Recognition***
Supervised by Prof. Tan Yap Peng
- Investigate technologies used in the area of unsupervised domain adaptation
- Propose a new loss function to improve the performance
- Apply the state-of-the-art unsupervised domain adaptation method in the area of person re-id to the area of object recognition

NTU EEE Design & Innovation Project (DIP)   Aug 2020 – Dec 2020
DIP Project: ***Detection of Non-human Faces***
Supervised by Assoc. Prof. P. N. Suganthan
- Created a deep learning model with deep learning structures to do classification and regression Artificial Intelligence tasks in the area of Computer Vision
- Deployed EfficientNet and ResNet with *TensorFlow* to reach an 98% accuracy of classification task
- As team leader, managed to develop a model with top performance among all the participants of the project

NTU Undergraduate Research Experience on Campus (URECA)   Aug 2019 – May 2020
URECA Project: ***Design a Virtual Reality Game using Artificial Intelligence***
Supervised by Assoc. Prof. Lin Feng
- Developed a system to help patients with bone problem for rehabilitation
- Promoted virtual reality usage by creating interesting game based on Unity and *C# Programming*
- Implemented Inverse Kinetic method in the game to make the AI opponent perform naturally

INTERNSHIP

Huawei International Pte Ltd, *Intern Researcher on AI Security*   Jan 2021 – Aug 2021
- First introduced the third class of Membership Inference Attack with Facial Recognition task and Transfer Learning
- Managed to develop current Membership Inference Attack with higher accuracy
- Implement Membership Inference Attack on language dataset and implement Membership Inference Attack with Graph Neural Network

AWARDS & ACHIEVEMENTS

- Science and Technology Undergraduate Scholarship, NTU   Aug 2017 – Present

RESEARCH INTERESTS

- **Machine Learning**: Deep Learning, Computer Vision, Recommendation System
- **High Performance Computing**: Distributed Systems, Parallel Computing

SKILLS

- **General**: C / C++, MATLAB, Java, HTML, JavaScript
- **Tools**: PyTorch, TensorFlow