Larry Law ☑ ♥ ೧

Final Year Computer Science Undergraduate, National University of Singapore Natural Language Processing Research Intern, DSO National Laboratories



EDUCATION

• National University of Singapore

Aug. 2018 - May. 2022 (expected)

• Raffles Institution

Bachelor of Computing in Computer Science; CAP: 4.42/5

Jan. 2010 - Dec. 2015

GCE 'A' Levels; University Admission Score: 87.5/90

Honours And Awards

• Dean's List

Jan. 2021 - May. 2021

• Invited to the Turing research programme by A/P Bryan Low and Professor David Hsu

Jan. 2021

• Placed on the University Scholar's Programme (USP) Honour Roll

Aug. 2019 - May. 2020

WORK EXPERIENCE

• DSO National Laboratories

May 2021 - Present

NLP Research Intern, supervised by Dr Chieu and Prof Lee Wee Sun

- Proposed to apply co-training for semi-supervised, cross-lingual rationale extraction (Thesis here).
- Reduced the rationale error rates between partially and fully supervised models by 51.7% and 50.4% for the English and French models with only 0.2% of labelled training examples.
- Implemented rationale extraction research paper using PyTorch and HuggingFace.

• National University of Singapore

May 2020 - May 2021

Research Assistant, supervised by A/P Bryan Low

- Proposed to integrate non-myopic bayesian optimisation with network morphism for neural architecture search (*Thesis here*).
- Implemented network morphism research paper using PyTorch.
- Recommended to the Turing Research Programme by A/P Bryan Low.

• AXA Singapore

May 2019 - Aug 2019

Software Engineer Intern

- Set up state management system, integrated tests and unit tests for the insurance ecommerce product with React Hooks, Jest, and Cypress respectively.
- \circ Wrote simple bash scripts to automate contribution process for internal shared library, reducing time taken for the process by 20%

PROJECTS

• Automatic Github Issue Labeller

Mar 2021 - May 2021

CS4248: Natural Language Processing

- Published a Github Action that uses **NLP to automatically label github issues** on the Github marketplace (Demo here).
- Fine-tuned BERT with scraped github issues. Deployed model using Docker.
- Outperforms traditional regex approaches in F1 score by 0.51.
- Labeller is used by the WING-NUS research group, led by A/P Min-Yen Kan.

• Do We Know Singapore's Trees Bettter Than Machines?

Aug 2021 - Nov 2021

CS5242: Neural Networks and Deep Learning

- Implemented simple MLP, CNNs, RNNs, and ANNs for the problem of recognising the most common trees in Singapore. (Demo here)
- o Built simple machine learning pipelines for training, debugging and results analysis using Pytorch.

Programming Skills

- Languages: Python, Javascript, Java, Bash
- Technologies: PyTorch/TensorFlow/Keras, HuggingFace/AllenNLP, Scikit-Learn/pandas/numpy, Docker, React