Larry Law

Final Year Computer Science Undergraduate, National University of Singapore

Education

- **National University of Singapore** *Aug. 2018 – May. 2022 (expected)*
  Bachelor of Computing in Computer Science; CAP: 4.45/5
- **Raffles Institution** *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. Reproduced results of said paper.**
- **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.** Neural networks augmented with network morphism **converged 67% faster** than vanilla networks.
- **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, Cypress, and Jest** respectively.
  - 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** *(Demo here)*.
  - **Fine-tuned BERT** with scraped github issues. Deployed model using **Docker**.
  - Labeller is **used by the WING-NUS research group**, led by A/P Min-Yen Kan.
- **DuckieNet** *Aug 2020 - Nov 2020*
  CS2309: Research Methodology
  - Proposed **DuckieNet**, a model which **integrates planning with Semantic Segmentation for Goal-Directed Autonomous Navigation in Crowded Environments**. *(Demo here)*
  - DuckietNet cleared **2/6 maps** and **21 obstacles more** than our baseline without semantic segmentation.

Programming Skills

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

Relevant Coursework

- **Computer Science**: NLP, Information Retrieval, Deep Learning, Machine Learning, Artificial Intelligence
- **Mathematics**: Discrete Mathematics, Calculus, Linear Algebra I & II, Probability, Statistics, Mathematical Analysis I