Machel Reid

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RESEARCH / WORK EXPERIENCE

Matsuo Lab, The University of Tokyo Tokyo, JP

Researcher November 2020 - Present

- Collaborating with researchers at CMU, Facebook AI, RIKEN, UW, and Yale University.
- Working on multilingual pretraining methods as well as methods for data synthesis / text style transfer
- Youngest full-time researcher at the University of Tokyo at age 16.
- Teaching Assistant for undergraduate Introduction to Machine Learning (ItML) course.

Research Intern October 2019 - October 2020

- Working on representation learning, word embeddings for low resource languages, and definition modeling.
- Published in ICLR 2020, ACL 2020 workshops and at the main conference at EMNLP 2020.
- Youngest member of the lab at 15yrs — (at time of internship)

Language Technologies Institute, Carnegie Mellon University Pittsburgh, PA

Visiting Student Researcher May 2021 - Present

Numada Lab, The University of Tokyo Tokyo, JP

Research Intern June 2019 - September 2019

- Worked on the development of a machine learning based system for accelerated disaster inquiry responses and for ease of access to information in natural disaster situations.
- Youngest member of the lab 14yrs

Thomson Reuters Foundation Remote / Tokyo, JP

Researcher May 2019 - June 2019

- Translated TRF's survey regarding social entrepreneurs and conducted research with companies across Japan to be incorporated into the global study. http://poll2019.trust.org/

Researcher September 2018

- Conducted research about women-only carriages with Tokyoites in Japanese.
- Article featured on the World Economic Forum, Japan Times, Thomson Reuters. https://www.weforum.org/agenda/authors/machel-reid

Researcher August 2018 - September 2018

- Conducted research about 200 women's views on transportation in Tokyo over 5 days for TRF.
- Developed graphs and visual representations of the data for easy consumption. http://2018transportpoll.trust.org/city/tokyo/

PUBLICATIONS

1. **Machel Reid** and Victor Zhong. LEWIS: Levenshtein Editing for Unsupervised Text Style Transfer. *Findings of the Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (ACL-IJCNLP Findings). August 2021. Association for Computational Linguistics.*

2. **Machel Reid**, Edison Marrese-Taylor and Yutaka Matsuo. Subformer: Exploring Weight Sharing for Parameter Efficiency in Generative Transformers. *January 2021. Preprint. Work in progress.*

3. Edison Marrese-Taylor, **Machel Reid** and Yutaka Matsuo. Variational Inference for Learning Representations of Natural Language Edits. *Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI-21). February 2021. Presented at the 5th Workshop on Representation Learning for NLP (non-archival), ACL 2020.*

4. **Machel Reid**, Edison Marrese-Taylor and Yutaka Matsuo. VCDM: Leveraging Variational Bi-encoding and Deep Contextualized Word Representations for Improved Definition Modeling. *The 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP 2020). November 2020. Association for Computational Linguistics.*

5. **Machel Reid**, Edison Marrese-Taylor and Yutaka Matsuo. Combining Pretrained High Resource Embeddings and Subword Representations for Low-Resource Languages. *AfricaNLP Workshop, International Conference of Learning Representations (ICLR20) 2020*

AWARDS & HONORS

Masayoshi Son Foundation Scholar July 2020 - Present
Supports youth with high aspirations and exceptional talents. Supports both education and research.

Grand Prize Winner, Rakuten Technology Conference Hackathon October 2018
Developed a prototype matchmaking app between babysitters and working parents; made to combat problems that working women face in Japan today (career or children?). `https://blog.api.rakuten.net/rtc-hackathon-winners/`

Google TPU Research Cloud Award April 2021
Awarded up to USD$140,000 worth of cloud computing credits (TPU) for research purposes by Google.

TESTS & CERTIFICATES

- **JLPT N1** – Passed – Dec 2019
- **SAT Math II Subject Test** – 800/800 – age 13
- **SAT US History Subject Test** – 770/800 – age 13
- **SAT** – 1490/1600 – 720 English, 770 Math – Top 1% – age 12
- **Deep Learning Specialization** (deeplearning.ai) – Nov 2019
- **Machine Learning** (Stanford University) – Sep 2019

VOLUNTEER ACTIVITIES

- **ICML 2020 Volunteer**
- **ACL 2020 Volunteer**
- **ICLR 2020 Volunteer**
- **Rakuten RapidAPI Champions Program**
  Worked in the capacity of a technology evangelist (API Champion) at Rakuten RapidAPI. Judged at Junction Tokyo 2019 at age 14.

SKILLS

Software Python, JavaScript, PyTorch, Fairseq, HF Transformers, Linux, Bash/Zsh, LaTeX
Languages English (native), Japanese (advanced)