# Chih-Hao Wang

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#### **EDUCATION**

Waseda University

Tokyo, Japan

Computer Science and Engineering, B.E. – GPA: 3.96/4.00, Rank: 1/106

Sep 2015 – Mar 2020

Honors: Scholarship for Successful International Examinees, Global Leader Support Scholarship

**National University of Singapore** 

Singapore

One-year university exchange program

Aug 2017 - May 2018

### **PUBLICATION**

**Wang, C.H.**, Kato, S., and Sakai, T.: RSL19BD at DBDC4: Ensemble of Decision Tree-based and LSTM-based Models, *Proceedings of WOCHAT and DBDC, IWSDS 2019, pdf at arXiv:1905.01799* 

- Investigated Decision Trees and DNN approaches for the Fourth Dialogue Breakdown Detection Challenge.
- Ranked 1st, 2nd place among all participants in performance on the English, Japanese dataset, respectively.

### PROFESSIONAL EXPERIENCE

**LeapMind** – Summer Intern (Deep Learning) – Internship Blog

Aug - Sep 2019

- Developed an original DNN for optical flow estimation on CPU and FPGA-based devices.
- Reduced the neural network inference time by 53.14% with low-bit quantize-aware training.
- Received the Chief Research Officer award for outstanding performance and great teamwork.
- Tools: TensorFlow, Python

**Yahoo!** – *Intern (E-commerce Backend Engineer)* 

Jul – Aug 2018

- Created RESTful APIs by negotiating with 2 designers and 2 frontend engineers in a scrum team.
- Increased throughput by 274% with 95th percentile response time less than 200ms using Redis.
- Scaled the project with load balancing and boosted performance using proxy caching.
- Tools: Node.js, Swagger, Apache Traffic Server, Redis, MySQL, JMeter, Screwdriver.cd

**Waseda University** – Teaching Assistant (Introduction to Programming)

Apr – Jul 2017

- Assisted the professor to facilitate the teaching of a C programming course with 60+ students.
- Provided programming ad-hoc consultation sessions in English, Japanese, and Chinese.

## RESEARCH EXPERIENCE

## Waseda University Sakai Laboratory – Research Member

Sep 2018 - Present

- Advisor: Prof. Tetsuya Sakai
- Investigating ML approaches for NLP, including sentiment analysis, dialogue breakdown detection, and dialogue nugget detection.

## **PROJECTS** (more at github.com/OscarWang114)

WasedaTime • www.wasedatime.com

Dec 2017 - Present

Self-initiated Project – Source Code

- Leading a 3-person team to develop a full-stack web application for Waseda students, which has acquired more than 4,000 returning users and 300K page views.
- Tools: JavaScript, React, Redux, Node.js, Travis CI

## **Sentiment Analysis on Movie Reviews**

Nov 2018 - Feb 2019

Kaggle Challenge - Source Code

- Investigated DNN models for sentiment classification of IMDb movie reviews.
- Achieved an AUC score above 0.90 with FastText embeddings, CNN, and BiLSTM.
- Tools: Keras, Python, Google Cloud Platform

### **SKILLS**

- IT: Python, Java, C, HTML5, CSS3, JavaScript, SQL Databases, MongoDB
- Languages: English (GRE: 334/340, TOEFL: 117/120), Japanese (N1), Chinese (Native)