Curriculum Vitae – Shuhei Watanabe

August 31, 2020

General Information

E-mail	shuhei.watanabe.utokyo@gmail.com
Homepage	https://nabenabe0928.github.io
Github	https://github.com/nabenabe0928

Education

10.2020 – 07.2022 **Albert–Ludwigs–Universität Freiburg** - Freiburg, Germany.
Master of Computer Science.

09.2015 – 03.2020 **The University of Tokyo** - Tokyo, Japan.
Bachelor in Systems Innovation, Faculty of Engineering.
I was absent from the university from 04.2018 to 08.2019.
The GPA in the Faculty of Engineering: 3.85/4.3.
Graduated with **the Best GPA** out of 37 students.

04.2014 – 08.2015 **The University of Tokyo** - Tokyo, Japan.
Bachelor of College of Arts and Science, Natural Science 1.

Employment

09.2018 – 09.2020 **National Institute of Advanced Industrial Science and Technology (AIST)** - Tokyo, Japan.
Technical Staff, full-time job.
Studying AutoML, especially Hyperparameter Optimization.

04.2018 – 08.2018 **M3, inc.** - Tokyo, Japan.
Market Researcher and Consultant, full-time job(internship).
Consulting the methods to lay out the genome business.

02.2016 – 03.2018 **CA Tech Kids, inc.** - Tokyo, Japan.
Programming mentor, part-time job.
Teaching programming to elementary school students.

Awards / Honors

09.2020 **ITO Foundation for International Education Exchange** ($2,000/month for 2 years, AR: 13/193=6.7%).

03.2020 **Hatakeyama Award from The Japan Society of Mechanical Engineers** This award is for the distinctive grades at the mechanical engineering related faculties at the University of Tokyo (AR: 5/340=1.5%).

05.2019 **PRMU 2018 Yearly Research Encouragement Award** for the paper *Speed up of Hyper-parameter Tuning with Nelder-Mead Method by Parallel Computing*, jointly with Yoshihiko Ozaki, Masaki Onishi. 3 papers were selected out of 170 papers. (AR: 3/170=1.8%).

10.2014 **1st Prize in the freshman team Hokei in the National Intercollegiate Taido Tournament**. Taido is one of the Japanese traditional martial arts.

Publications

I list acceptance rate for prizes or conferences where available as "AR: (papers accepted)/(papers submitted)=(percentage)". ◯ refers to the presenter. ♣ refers to the equally contributed authors.

Theses

1. ◯ **S Watanabe**. (2018). Bachelor thesis. A Study on the Spontaneously Emerged Cooperation in a Collective Game with AI Type Agents. The University of Tokyo, Tokyo, Japan.

Referred Conference Publications

1. ◯ S Takenaga, **S Watanabe**, M Nomura, Y Ozaki, M Onishi, H Habe (2020). Evaluating Initialization of Nelder–Mead Method for Hyperparameter Optimization in Deep Learning. International Conference on Pattern Recognition (ICPR2020). To appear. Oral presentation.
2. ◯ Y Ozaki, Y Tanigaki, **S Watanabe**, M Onishi (2020). Multiobjective Tree-structured Parzen Estimator for Computationally Expensive Optimization Problems. The Genetic and Evolutionary Computation Conference (GECCO2020). To appear. Oral presentation.
3. ◯ **S Watanabe**, Y Ozaki, Y Bando, M Onishi (2019). Speeding up of the Nelder–Mead Method by Data–driven Speculative Execution. Asian Conference on Pattern Recognition (ACPR2019). Oral presentation. (AR: 128/273=46%, **oral presentation: 36/273=13%**)

Referred Workshop Publications

1. ◯ Y Ozaki, ◯ **S Watanabe**, M Onishi (2019). Accelerating the Nelder–Mead Method with Predictive Evaluation. 6th ICML Workshop on Automated Machine Learning (AutoML2019) (AR: 29/50=58%).
2. ◯ ♣ M Nomura, ♣ **S Watanabe**, Y Ozaki, M Onishi (2019). Warm Starting Method for CMA-ES. Workshop on Meta-Learning at NIPS 2019 (MetaLearn2019) (AR: 58/84=69%).

Non-peer Reviewed Publications

1. ◯ **S Watanabe**, Y Ozaki, M Onishi (2019). Speed up of Hyper-parameter Tuning with Nelder–Mead Method by Parallel Computing. Pattern Recognition and Media Understanding (PRMU2019). **PRMU 2018 Yearly Research Encouragement Award** (AR: 3/170=1.8%).
2. ◯ **S Watanabe**, M Nomura, M Onishi (2020). The Characteristics Required in Hyperparameter Optimization of Deep Learning Algorithms (JSAI2019).

Research Skills

I rate my skill on a scale from ++ (very good) to ×× (no knowledge). My code is available here: https://github.com/nabenabe0928

Python	++	Main language in my research.
Pytorch	++	Main framework for deep-learning models in my research.
Singularity	++	Used this container to manage environments.
Shell	++	Used to manage experiments automatically.
Github	++	Used to participate in developments in AIST.
HPC	++	Used HPC called ABCI to conduct experiments in AIST.
MS Office	++	Used in consulting companies for half a year.
Java	++	Main language in the research for bachelor's thesis.
Tensorflow	+	Used when conducting experiments for bachelor's thesis.
Keras	+	Used when conducting experiments for bachelor's thesis.
C++	+	Only for coding competitions.

Linear Algebra & Calculus

++ Top 5% in *Exercises for Mathematics 1, 2* from 09.2016 to 08.2017 which is the latest grades related to the knowledge.

Certificates

TOEFL iBT	Total 100 (R: 29, L: 25, S: 22, W: 24).
GRE	Q: 168 (93%), V: 152 (54%), W: 4.0 (57%).

Language Skills

English	CEFR C1.
Japanese	Mother Tongue.
German	CEFR A2.
French	CEFR A2.