

# Tomomasa Yamasaki

PHD CANDIDATE

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## Research Interests

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- Design Automation Tool for Neural Network Accelerator
- Network Architecture Search
- Signal Processing of Biomedical information

## Education

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### Singapore University of Technology and Design

PHD COMPUTER SCIENCE

Singapore

Sep. 2021 - present

- Advisor: Dr. Bo Wang
- Co-Advisor: Dr. Niangjun Chen

### Aoyama Gakuin University

MASTER OF ENGINEERING

Japan

Apr. 2019 - Mar. 2021

- Advisor: Dr. Yosuke Kurihara
- Co-Advisor: Dr. Takashi Kaburagi

### Aoyama Gakuin University

BACHELOR OF ENGINEERING

Japan

Apr. 2015 - Mar. 2019

- undergrad research advisor: Dr. Yosuke Kurihara

## Research Experience

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### Astar, Institute of High Performance Computing (IHPC)

COMPUTER SCIENTIST

Singapore

Oct. 2022 - present

- Advisors: Dr. Zhehui Wang & Dr. Tao Luo
- Project: Simulator Development for Deep Learning 2.0 Neural-network Accelerator

### AI Dynamics

ARTIFICIAL INTELLIGENCE ENGINEER

United States (Remote)

Aug. 2021 - Mar. 2022

- Project: Automatic recording system for the moves of Japanese chess
- Project: Automatic learning image creation system for digit recognition AI model

### Maris Creative Design

FIRMWARE ENGINEER

Japan

Feb. 2020 - Jul. 2021

- Project: Glasses-type walking assist device for the visually impaired

## Publications

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PUBLISHED

Dongrui Li, **Tomomasa Yamasaki**, Aarth Mani, Anh Tuan Do, Niangjun Chen, Bo Wang. "LAXOR: A Bit-Accurate BNN Accelerator with Latch-XOR Logic for Local Computing," ACM/IEEE International Symposium on Low Power Electronics and Design, 2023

**Tomomasa Yamasaki**, et al. "Classification System for Golf Ball Initial Conditions using CNN Based on High Time Resolution Images," The 8th IIAE International Conference on Industrial Application Engineering, 2020

**Tomomasa Yamasaki**, et al. "Golf Ball Initial Condition Estimation Method of Based on a High Time Resolution Simulation Image," 25th International Symposium on Artificial Life and Robotics, 2020

Yosuke Kurihara, **Tomomasa Yamasaki**, et al. "Model of Urine Accumulation in the Bladder and Method for Predicting Unconstrained Urine Volume Based on Absorption Spectrum of Urine," IEEE Access, 2020

Takumi Hirota, **Tomomasa Yamasaki**, et al. "Estimation of Urinary Accumulation Model Parameters Based on Absorption Spectrum and Method of Predicting Urinary Volume in the Bladder for a Multi-Task Gaussian Process," The Society of Instrument and Control Engineers (SICE) Annual Conference. 2020

**Tomomasa Yamasaki**, et al. "Unrestrained Diastolic Blood Pressure Estimation Method Using Heartbeat during Sleep," Asia-Pacific Signal and Information Processing Association Annual Summit and Conference, 2018

## Awards & Scholarship

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- 2023 **Graduate Student Service Award**, Singapore University of Technology and Design
- 2021 **Ministry of Education PhD Fellowship**, Ministry of Education in Singapore  
**Start-up Kyocera Award**, Sony Startup Switch 2021
- 2020 **Best Student Paper Award**, The Institute of Industrial Applications Engineers

## Teaching Experience

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- 2023 **User Interface Design & Implementation**, Teaching Assistant Singapore  
**Distributed Computing System**, Teaching Assistant
- 2020 **C++ Programming**, Teaching Assistant Japan
- 2019 **Workshop on Data Analysis**, Teaching Assistant  
**Data science**, Teaching Assistant

## Mentoring

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- 2023 **Undergraduate Brandon Ng Joon Hoe**, Singapore University of Technology and Design Singapore
- 2018-2021 **Undergraduate Takumi Hirota**, Aoyama Gakuin University Japan

## Certifications

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- Feb. 2022 **Research Week with Google**, Google Singapore