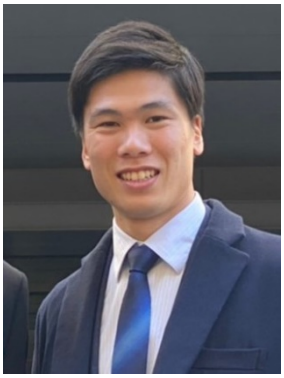
Shun Ishii



Basics

- Nationality: Japan
- Birthday: November 12th, 1997
- Living: Tokyo
- Hobby: Soccer, Music, Travelling
- Major: Computer Sciences

Education

Nihon University Fujisawa High School *2013-2016*
I got an excellent student award at graduation ceremony.

Aoyama Gakuin University (B.E.) *2016-2020*
College of Science and Engineering, Department of Integrated information Technology

Chulalongkorn University (Short Term Exchange) – **Thailand** *2017*
Faculty of Engineering, College of International Science and Engineering

Aoyama Gakuin University (M.E.) *2020-*
Department of Science and Engineering, Graduate School of Science and Engineering,
Master's Program of Intelligence and Information Course

Club Activity

Nihon University Fujisawa FC *2013-2016*
I got some titles such as the third place in national tournament. I was a Position Reader.

SV Sandhausen (Germany) *2016.3*
I went to Germany to participate in a professional soccer team.

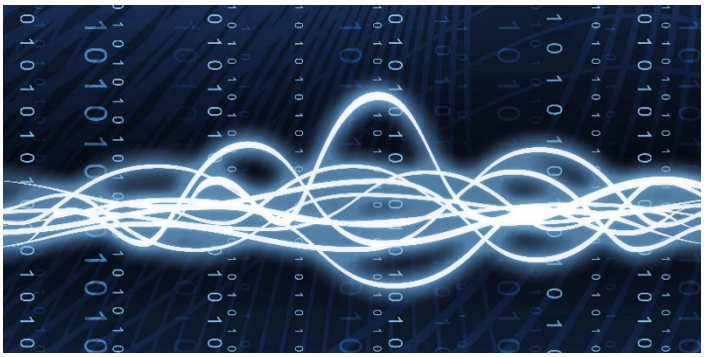
Aoyama Gakuin University FC *2016-2019*
I decided to play soccer not in Germany but in University Club with some reasons. I was game captain.

Research

Effects of Recovery from Fatigue by Magnetic Calf Supporter

I received a request from a company and verified the recovery effects from fatigue by magnetic calf supporter. In my soccer club, half of players wear the supporter. After game, the players who wore it and the others measured pulse wave using infrared sensors. I collected the heart rate data and analyzed it using MATLAB and R (programming language for analysis). As a result, there was a significant difference between those who wore and those who did not wear. I presented at *Academy of Human Informatics*.

Mental Fatigue Level Estimation in Desk Work using Vital Signs



Using heart rate sensor, I found some indexes which can detect mental fatigue and propose a system that inform workers to take a break. I presented at *Information Processing Society* and got "*Presentation Awards*". Information Processing Society of Japan, DICOMO2019 Program

Robust Classification of Eating Sound Collected in Natural Meal Environment

This is the biggest project of our laboratory. We proposed an optimization model for classification of chewing, swallowing, and speaking activities using sound data collected by a bone conduction microphone in a natural eating environment. We used some machine learning methods and compared each other. The conference, *UbiComp* is one of the biggest conferences of ubiquitous computing around the world. UbiComp 2019 Poster and Demo Program

Real-time Exercise Recognition using Accelerometer

This is my graduation research. It classifies and counts some exercises automatically and real-time. For examples, walking, running, push-ups, sit-ups, and jumping. I used some of signal processing methods for smoothing, peak detection, correlation and so on. I used MATLAB to analyze data and Unity to develop an application. I got an excellent thesis award. (https://youtu.be/iqmVXUce-Zs)

Development

Autonomous Driving System with Collision Avoidance

I made an autonomous driving system with collision avoidance wit. It has four sensors and microcomputer. I mainly did coding while my friend assembles the body. I used C language which I hardly trained.

Magic Stick Shooting Game

I developed a shooting game using magic stick. My friend made exterior of the stick and I made the "magic" system and the game. Users defeat enemies by swinging the stick and shooting balls. I made a classification model which recognize some gestures from acceleration using machine learning. Bluetooth and UDP are used for communication. The game is made with Unity, C#, Python, Arduino.

Car Race Game for Smartphone

I created a race game for smartphone using accelerometer. What users need to do is only tilting the phone. If users tilt it right, the car move right. If users tilt it forth, the car move forward. If the car crashes, game over. I used Unity and C#. (https://play.google.com/store/apps/details?id=com.ShunIshii.AcceRace)

QR Code Reception

I developed QR code reception system. When you invite someone to your office, you create QR code easily from my original website, just type “your name”, “your email address”, and “visitor name.” After getting QR code, you send it to visitor. When visitor arrive at your office, visitor place the QR code in front of a tablet which installed an application that read QR code and send notification to you.

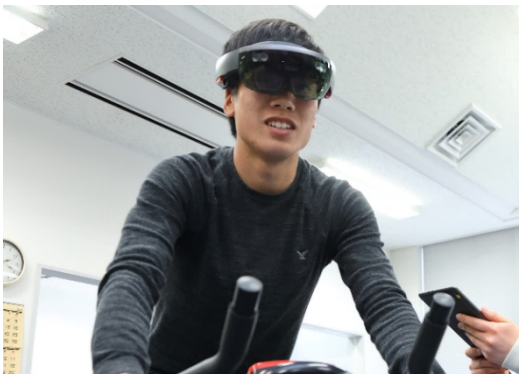
VR Shooting Game

This is an amazing game that helps people who don’t like exercise. Using AR headset, people can enjoy some exercise. Obstacles are coming and the player avoids it doing pushups or jumping, and so on. I present the game to sensor company. (https://youtu.be/WUkLtC-0BDo)

AR Mask Line for COVID-19

Using smartphone or Hololens, people can put their avatar in the line instead of themselves. Every time, everyone can keep social distance. I implemented using Azure Spatial Anchors. I posted to *Local Hack Day* and got a prize, “Best Use of Microsoft Azure”. (https://devpost.com/software/ar-mask-line-for-covid-19)

Skills



IT

- C#, C/C++, Java, Python, JavaScript, Kotlin, R, MATLAB, Android, Unity, Ruby on Rails, .NET, Azure, Machine Learning, Signal Processing
- I’m teaching MS Office Software and programming at University.

Language

- Japanese: Native
- English: Conversational

Experience

Accenture Japan Ltd – Intern *2019.8*

I joined summer internship for engineer. Our team of seven members discussed deeply about a sales problem, came up with a strategy and developed for the solution. The content is secret. I was a leader and mainly coding JavaScript.

Yahoo Japan Corporation – Intern *2019.8*

I joined an advertisement team and improved the recommendation algorithm. I used Elasticsearch as searching engine and make the algorithm using Python.

Turku Game Lab (Finland) – Intern *2019.9 - 2019.12*

I joined a game lab in Turku University of Applied Sciences as a game developer/researcher. Our team developed a fitness application which distinguish some exercises and whether it is done correctly. Using same algorithm, I developed a VR shooting game. About Turku Game Lab

Apex K.K. – Intern *2020.3 - long term*

Web scraping of ten thousand data (Python, Selenium, BeautifulSoup), website development (WordPress), QR code reception system (Unity, Ruby on Rails).

PERSOL CAREER CO., LTD. – Intern *2020.6*

I joined SPRINT, a business contest-like internship for engineer. We built a prototype using Design Sprint which is a framework for launching a new service. Finally, we won the competition.

Microsoft Learn Student Ambassador *2020.7 - long term*

A global program for student professionals of Microsoft technology.

Microsoft Japan Co., Ltd. – Intern *2020.8 – 2020.9*

I joined a support engineering team.

Awards

KDDI Digital Gate Hackathon – Outstanding Award *2019.6*

(by KDDI CORPORATION)

IoT Hackathon. We developed "Alarm Home", a system that wake up the user with all of home appliances by detecting the waking up and sleeping again using a distance sensor.

DICOMO Symposium – Outstanding Presentation Award *2019.7*

(by Information Processing Society of Japan)

A conference of ubiquitous computing which more than 200 researchers joined. I presented a research about mental fatigue recognition using heart rate.

DICOMO Night Technical Session – First Place *2019.7*

(by Information Processing Society of Japan)

We presented our research about image classification using deep learning.

Graduation Research – Best Award *2020.2*

(by Aoyama Gakuin University)

I wrote and presented my graduation research about fitness tracking in English.

Local Hack Day Share – Best Use of Microsoft Azure *2020.4*

(by Major League Hackathon sponsored by Microsoft)

I developed AR Mask line to reduce infection of COVID-19. See "Development."

DICOMO Symposium – Young Researcher Award *2020.6*

(by Information Processing Society of Japan)

I presented a research about fitness tracking.

DICOMO Night Technical Session – First Place *2020.6*

(by Information Processing Society of Japan)

We presented our research about online meeting.

Activity and Behavior Computing – Excellent Paper Award *2020.8*

(by International Conference on Activity and Behavior Computing)

https://abc-research.github.io/

I presented our research about exercise recognition.

Links

- LinkedIn: https://www.linkedin.com/in/shunishii/
- GitHub: https://github.com/ShunIshii
- Website: https://shunishii.github.io/
- Email: ishiishun0@gmail.com