# Yuuki NISHIYAMA

Center for Spatial Information Science, The University of Tokyo · Lecture

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Japan

Japan

Japan

Japan

Finland

Japan

Japan

Japan

PA, USA

Japan

Japan

### Education

Graduate School of Media and Governance, Keio University

Japan

Ph.D. in Media and Governance Apr. 2014 - Sep. 2017

Graduate School of Media and Governance, Keio University

Master of Media and Governance Apr. 2012 - Mar. 2014

Faculty of Environment and Information Studies, Keio University

Bachelor of Arts in Environment and Information Studies Apr. 2008 - Mar. 2012

## Experience\_\_\_\_\_

Center for Spatial Information Science

Lecturer (Assistant Professor)

Apr. 2022 - Current

Institute of Industrial Science, The University of Tokyo

Research Associate Sep. 2019 - Mar. 2022

Faculty of Information Technology and Electrical Engineering, University of Oulu

Postdoctoral Researcher Apr. 2018 - Aug. 2019

**Graduate School of Media and Governance, Keio University** 

Postdoctoral Researcher Oct. 2017 - Mar. 2018

Bachelor of Arts in Environment and Information Studies, Keio University

Part-time Lecturer Apr. 2017 - Mar. 2018

College of Science and Engineering, Aoyama Gakuin University

Part-time Assistant Apr. 2017 - Sep. 2017

Ubicomp Lab, Human Computer Interaction Institute (HCII), School of

Computer Science, Carnegie Mellon University

Visiting Research Scholar Sep. 2015 - Mar. 2016

Global Environmental System Leaders Program (GESL), Keio University

Research Assistant (RA)

Apr. 2014 - Mar. 2017

## Teaching Experiences \_\_\_\_\_

#### **Introduction to Socio-Cultural Environmental Studies**

Graduate School of Frontier Sciences, The University of Tokyo Spring 2022

University-wide Open Research Seminar (Introduction to Web Service and Application Design)

The University of Tokyo Autumn 2022

Japan

March 4 2023

Urban Computing Theory Graduate School of Frontier Sciences, The University of Tokyo	Japan Autumn 2022
University-wide Open Research Seminar (Introduction to Web Service and Application Design)	Japan
The University of Tokyo	Autumn 2021
<b>Urban Computing Theory</b> Graduate School of Frontier Sciences, The University of Tokyo	Japan Autumn 2021
Network Architecture  Graduate School of Frontier Sciences, The University of Tokyo	Japan Spring 2021
Spatial Information Design Graduate School of Frontier Sciences, The University of Tokyo	Japan Autumn 2020
Mobile Computing Faculty of Information Technology and Electrical  Engineering  Oulu University	Finland Autumn 2018
	Autumm 2018
Data Acquisition (GIGA) - Human Activity Sensing using Mobile Phone (Invited Lecture)	Japan
Faculty of Environment and Information Studies, Keio University	Autumn 2017
Fundamentals of Information Technolog 1&2 Faculty of Environment and Information Studies, Keio University	Japan Autumn 2017
Fundamentals of Information Technolog 1&2 Faculty of Environment and Information Studies, Keio University	Japan Spring 2017
System Construction Practical Trainin (TA)  College of Science and Engineering, Aoyama Gakuin University	Japan Spring 2017
Data Acquisition (GIGA): Human Activity Sensing using Mobile Phone (Invited Lecture)	Japan
Faculty of Environment and Information Studies, Keio University	Autumn 2014
Fundamentals of Object-Oriented Programming (TA) Faculty of Environment and Information Studies, Keio University	Japan Autumn 2014
Large-Scale Environmental Systems (TA) Graduate School of Media and Governance, Keio University	Japan Autumn 2014
Environmental Information System Architecture (TA) Graduate School of Media and Governance, Keio University	Japan Spring 2014
Introduction of Novel Fabrication (TA) Faculty of Environment and Information Studies, Keio University	Japan Autumn 2013
Object-Oriented Programming (TA)  Faculty of Environment and Information Studies, Keio University	Japan Autumn 2013
Ubiquitous Information Service (TA) Faculty of Environment and Information Studies, Keio University	Japan Autumn 2013
Ubiquitous System Architecture (TA) Faculty of Environment and Information Studies, Keio University	Japan Spring 2012

## Honors.

2022	<b>Outstanding Paper Award</b> , IPSJ 76th Workshop of SIG Ubiquitous Computing System (UBI) (as a co-author)	Japan
2022	<b>Excellent Presentation Award</b> , IPSJ 84th National Convention of IPSJ in Sensors for Helath Conditions (as a co-author)	Japan
2022	<b>Excellent Presentation Award</b> , IPSJ 84th National Convention of IPSJ in Public Transportation Session (as a co-author)	Japan
2021	<b>Outstanding Paper Award</b> , IPSJ 72th Workshop of SIG Ubiquitous Computing System (UBI) (as a co-author)	Japan
2020	<b>Outstanding Paper Award</b> , IPSJ 66th Workshop of SIG Ubiquitous Computing System (UBI) (as a co-author)	Japan
2020	<b>WiP Encouragement Award</b> , IPSJ 97th Workshop of SIG Mobile computing and smart society system (MBL) (as a co-author)	Japan
2020	<b>Excellent Presentation Award</b> , IPSJ 81st Workshop of SIG Itelligent Transportation Systems and Smart Communities (ITS) (as a co-author)	Japan
2018	<b>Honorable Mention Award</b> , ACM 20th International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI 2018)	Spain
2015	<b>Young Researcher Encouragement Award</b> , IEICE Technical Committee on Ambient Intelligence and Sensor Networks (SIG ASN)	Japan
2015	<b>Best Poster Award</b> , IEEE Eighth International Conference on Mobile Computing and Ubiquitous Networking (ICMU2015), (as a co-author)	Japan
2015	<b>SFC Student Award</b> , Faculty of Environment and Information Studies/Faculty of Policy Management, Keio University	Japan
2014	<b>Best Paper Award</b> , IEEE 16th International Conference on e-Health Networking, Applications and Services (HealthCom 2014)	Brazil

### **Presentations**

# 30th Workshop on Multimedia Communications and Distributed Processing (DPSWS2022)

Yonago, Japan

Panel Discussion: Speakers Oct. 2022

- Projections for DPS Workshop Programs in 30 Years
- https://www.dpsws.org/2022/

# SSE Invited Speaker Series at Stevens Institute of Technology, School of Systems & Enterprises

NJ, United States

Invited Talk Nov., 2022

- Encouraging human behavior change by using passive mobile sensing and lifelog sharing
- https://www.eventbrite.com/e/sse-invited-speaker-series-yuuki-nishiyama-phd-tickets-449765870827

#### **Location Business Japan**

Tokyo, Japan

Invited Talk

Apr. 2021

- MOCHA: Development and operation of a system for monitoring campus congestion, confirming contact, and recording stays using Bluetooth beacons for realizing a secure campus life at the University of Tokyo
- https://forest.f2ff.jp/introduction/5082?project\_id=20210401

## Workshop of SIG Smart Sensing System (SSS) in The Society of Instrument and Control Engineers (SICE)

Kumamoto, Japan

Invited Talk Nov. 2019

- SenbayKit: Introduction of an infrastructure for immediate archiving and re-streaming of multiple data streams using sensor dataintegrated video
- http://rcl.it.aoyama.ac.jp/member/sice-sss/20191115\_program.html

# 63rd Workshop of SIG Ubiquitous Computing System (UBI) in Information Processing Society of Japan (IPSJ)

Tokyohashi, Japan

Lightning Talk Aug. 2019

http://sigubi.ipsj.or.jp/seminar63/

March 4, 2023 Yuuki NISHIYAMA · CV 3

## Joint Workshop of Regional IoT and Information Capability Consortium / Health Information Consortium

Tokyo, Japan

Invited Talk Oct. 2019

• Human and Urban Sensing and Analysis Platform Using Mobile and Wearable Devices for Realization of Well-being Smart City

• https://hip.sfc.keio.ac.jp/2019/10/07/seminar-with-prof-spitz/

#### **Grants**\_

# Platform for Detecting Postpartum Depression Symptoms Using Passive Mobile Sensing

PΙ

Grant-in-Aid for Early-Career Scientists, Grants-in-Aid for Scientific Research (KAKENHI), Japan Society for the Promotion of Science (JSPS)

2023-2026

#### **Distributed Collaborative Learning Analytics for Developing Communities**

Co-Investigator

Grant-in-Aid for Scientific Research (A), Grants-in-Aid for Scientific Research (KAKENHI), Japan Society for the Promotion of Science (JSPS)

2020-2024

Sensor data processing and its utilization obtained from smartphones

PI 2021-2023

Activity recognition technologies for infants using wearable devices

PI

Joint Research with First-Ascent Inc.

Joint Research with Yahoo! JAPAN R&D

2022-2023

# Smart urban transportation infrastructure technology through behavior change and dynamic control of transportation infrastructure

Co-Investigator

National Institute of Information and Communications Technology (NICT) - Beyond 5G R&D Promotion Project

2021-2023

## Diversity-driven transformation technologies to realize a hyper-diverse society in the post-corona era

Co-Investigator

National Institute of Information and Communications Technology (NICT) - Research and Development of Information and Communication Technologies for Countermeasures against Viruses and Other Infectious Diseases

2021-2023

# Animal Wearable 2.0: Establishment of high-speed communication and high-reliability mechanisms for wildlife IoT

Co-Investigator

Grant-in-Aid for Scientific Research (A), Grants-in-Aid for Scientific Research (KAKENHI), Japan Society for the Promotion of Science (JSPS)

2021-2023

# Platform for detecting and utilizing kinesthetics to promote motor learning using voice-based ESMs.

PI

Grant-in-Aid for Early-Career Scientists, Grants-in-Aid for Scientific Research (KAKENHI), Japan Society for the Promotion of Science (JSPS)

2020-2021



#### Journal

Assessing environmental benefits from shared micromobility systems using machine learning algorithms and Monte Carlo simulation

H. Peng, Y. Nishiyama, K. Sezaki

Sustainable Cities and Society (Nov. 1, 2022) p. 104207. 2022

SFC GO: Online Physical Education Communications Support System

W. Sasaki, Y. Nishiyama, S. Hashiba, Y. Yamada, Y. Kakino, Y. Noda, E. Naka, T. Okoshi, J. Nakazawa, M. Mori, H. Mizutori, K. Shiota, T. Nagano, Y. Tokairin, T. Kato

Journal of Information Processing (JIP) - Digital Practice 3.1 (Jan. 15, 2022) pp. 19-33. 2022

Mobile phone sensor-based detection of subjective cannabis intoxication in young adults: A feasibility study in real-world settings

S. W. Bae, T. Chung, R. Islam, B. Suffoletto, J. Du, S. Jang, Y. Nishiyama, R. Mulukutla, A. Dey Drug and Alcohol Dependence (Jan. 1, 2021) p. 108972. 2021

Physical Activity Analysis of College Students during the COVID-19 Pandemic Using Smartphones

<u>Y. Nishiyama</u>, Y. Kakino, E. Naka, Y. Noda, S. Hashiba, Y. Yamada, W. Sasaki, T. Okoshi, J. Nakazawa, M. Mori, H. Mizutori, K. Shiota, T. Nagano, Y. Tokairin, T. Kato

Journal of Information Processing (JIP) [Special Issue of Ubiquitous Computing Systems (X)] 62.10 (Oct. 1, 2021) pp. 1630–1643. 2021

MOCHA: Developing and Operating a Location-Based Service in a University Campus Using Bluetooth Beacons Y. Nishiyama, Y. Kawahara, K. Sezaki

The Journal of the Institute of Image Electronics Engineers of Japan 50.3 (Aug. 1, 2021) pp. 459–461. the Institute of Image Electronics Engineers of Japan, 2021

Investigating the occurrence of selfie-based emotional contagion over social network

W. Sasaki, Y. Nishiyama, T. Okoshi, J. Nakazawa

Social Network Analysis and Mining 11 (Jan. 1, 2021) p. 8. Springer, 2021

Mobile Assessment of Acute Effects of Marijuana on Cognitive Functioning in Young Adults: Observational Study T. Chung, S. W. Bae, E.-Y. Mun, B. Suffoletto, Y. Nishiyama, S. Jang, A. K. Dey JMIR Mhealth Uhealth 8.3 (Mar. 10, 2020) e16240. 2020

Smartphone-Based Monitoring of Parkinson Disease: Quasi-Experimental Study to Quantify Hand Tremor Severity and Medication Effectiveness

E. Kuosmanen, F. Wolling, J. Vega, V. Kan, Y. Nishiyama, S. Harper, K. V. Laerhoven, S. Hosio, D. Ferreira JMIR Mhealth Uhealth 8.11 (Nov. 26, 2020) e21543. 2020

HealthyStadium: Meal Photo SNS with Mutual Healthiness Evaluation for Improving Users' Eating Habits Y. Eigen, Y. Nishiyama, T. Okoshi, J. Nakazawa

Journal of Information Processing (JIP) [Special Issue of Ubiquitous Computing Systems (VIII)] 60.10 (Jan. 1, 2019) pp. 1881–1895. 2019

A Platform for Mutual Watch-Over among the Elderly Using PAN and Gamification

J. Nakazawa, W. Sasaki, M. Obuchi, K. Egashira, Y. Nishiyama, T. Okoshi, T. Yonezawa, H. Tokuda The IEICE transactions on information and systems J101-D.2 (Jan. 1, 2018) pp. 306–319. 2018

MyFactor: Individual Characteristic Adaptive Estimation of Factor Information Contributing to Human Internal State M. Obuchi, Y. Nishiyama, T. Okoshi, T. Yonezawa, J. Nakazawa

Journal of Information Processing (JIP) [Special Issue of Ubiquitous Computing Systems (VI)] 58.10 (Jan. 1, 2017) pp. 1674–1687. 2017

Toward Health Exercise Behavior Change for Teams Using Lifelog Sharing Models

Y. Nishiyama, T. Okoshi, T. Yonezawa, J. Nakazawa, K. Takashio, H. Tokuda

IEEE Journal of Biomedical and Health Informatics 20.3 (Jan. 1, 2016) pp. 775–786. 2016

Encouraging Team Behavior Modification Using Lifelog

Y. Nishiyama, T. Okoshi, T. Yonezawa, J. Nakazawa, K. Takashio, H. Tokuda

Journal of Information Processing (JIP) [Special Issue of Ubiquitous Computing Systems (IV) 56.1 (Jan. 1, 2015) pp. 349–361. Information Processing Society of Japan (IPSJ), 2015

## Proceedings (Refereed)

HeadMon: Head Dynamics Enabled Riding Maneuver Prediction

Z. Han, L. Xu, X. Dong, Y. Nishiyama, K. Sezaki

IEEE International Conference on Pervasive Computing and Communications (PerCom), 2023, Atlanta, USA

Enabling Block Transmission on Backoff-based Opportunistic Routing

E. Hosonuma, Y. Nishiyama, K. Sezaki, T. Miyoshi, T. Yamazaki

2023 IEEE 20th Annual Consumer Communications & Networking Conference (IEEE CCNC 2023), 2023

Cooperative Local Distributed Machine Learning Considering Communication Latency and Power Consumption S. Ono, T. Yamazaki, T. Miyoshi, Y. Nishiyama, K. Sezaki

#### Detecting hand hygienic behaviors in-the-wild using a microphone and motion sensor on a smartwatch

#### H. Zhuang, L. Xu, Y. Nishiyama, K. Sezaki

Distributed, Ambient and Pervasive Interactions. Smart Living, Learning, Well-Being and Health, Art and Creativity: 11th International Conference, DAPI 2023, Held as Part of the 25th HCI International Conference, HCII 2023, 2023, Proceedings, Part II, 2023

#### DoubleCheck: Detecting Single-Hand Cycling with Inertial Measurement Unit of Smartphone

### X. Dong, Z. Han, Y. Nishiyama, K. Sezaki

IEEE International Conference on Pervasive Computing and Communications (PerCom), 2022, Pisa, Italy

#### DoubleCheck: Single-Handed Cycling Detection with a Smartphone

#### X. Dong, Z. Han, Y. Nishiyama, K. Sezaki

2022 IEEE International Conference on Systems, Man, and Cybernetics (SMC), 2022

#### Head Dynamics Enabled Riding Maneuver Prediction

#### Z. Han, X. Dong, Y. Nishiyama, K. Sezaki

Proceedings of the 20th Annual International Conference on Mobile Systems, Applications and Services, 2022, Portland, Oregon

#### A Micro-mobility Sensing System to Portray Riding Styles

#### Z. Han, Y. Nishiyama, K. Sezaki

Adjunct Proceedings of the 2022 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2022 ACM International Symposium on Wearable Computers, 2022, USA and UK

#### Poster abstract: UV index estimation leveraging GNSS sensors on smartphones

#### R. Ishioka, Y. Nishiyama, K. Tsubouchi, K. Sezaki

Proceedings of the 20th Conference on Embedded Networked Sensor Systems, Boston, USA, 2022, New York, NY, USA

#### Detecting Childcare Activities Using an Off-the-shelf Smartwatch

#### Y. Kasahara, Y. Nishiyama, K. Sezaki

2022 IEEE International Conference on Smart Computing (SMARTCOMP), 2022, Espoo, Finland

#### Toward Measuring Conversation Duration Using a Wristwatch-type Wearable Device

Y. Komatsu, K. Shimojo, Y. Nishiyama, K. Sezaki

2022 IEEE International Conference on Smart Computing (SMARTCOMP), 2022, Espoo, Finland

#### A Plug-in Memory Network for Trip Purpose Classification

#### S. Lyu, T. Han, Y. Nishiyama, K. Sezaki, T. Kusakabe

Proceedings of the 30th International Conference on Advances in Geographic Information Systems, 2022, Seattle, Washington

#### MOCHA: Mobile Check-in Application for University Campuses Beyond COVID-19

#### Y. Nishiyama, H. Murakami, R. Suzuki, K. Oko, I. Sukeda, K. Sezaki, Y. Kawahara

The Twenty-third International Symposium on Theory, Algorithmic Foundations, and Protocol Design for Mobile Networks and Mobile Computing, 2022, Seoul, Republic of Korea

#### Detecting Face-Mask Wearing Status Using Motion Sensors in Commercially Available Smartwatches

#### S. Ono, Y. Nishiyama, K. Sezaki

2022 IEEE International Conference on E-health Networking, Application & Services (HealthCom), 2022, Genoa, Italy

## A Preliminary Study for Detecting Visual Search Behaviors During Street Walking Using Earable Device K. Shimojo, Z. Han, Y. Nishiyama, K. Sezaki

Adjunct Proceedings of the 2022 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2022 ACM International Symposium on Wearable Computers, 2022, USA and UK

#### Poster abstract: Recursive Queueing Estimation Using Smartphone-based Acoustic Ranging

#### I. Sukeda, H. Murakami, Y. Nishiyama, H. Murakami, Y. Kawahara

Proceedings of the 20th Conference on Embedded Networked Sensor Systems, Boston, USA, 2022, New York, NY, USA

#### Poster abstract: Room Scale Localization Improvement Utilizing Stay Time Characteristics of Each Room

#### R. Suzuki, Y. Nishiyama, H. Murakami, Y. Kawahara, K. Sezaki

Proceedings of the 20th Conference on Embedded Networked Sensor Systems, Boston, USA, 2022, New York, NY, USA

## Enhancing Self-Protection: What Influences Human's Epidemic Prevention Behavior during the COVID-19 Pandemic

L. Xu, Y. Nishiyama, K. Sezaki

Distributed, Ambient and Pervasive Interactions. Smart Living, Learning, Well-Being and Health, Art and Creativity: 10th International Conference, DAPI 2022, Held as Part of the 24th HCI International Conference, HCII 2022, Virtual Event, June 26 – July 1, 2022, Proceedings, Part II, 2022, Berlin, Heidelberg

#### Poster abstract: Convolutional Compressed Sensing for Smartphone Acceleration Data Compression

#### L. Xu, Y. Nishiyama, M. Shimosaka, K. Tsubouchi, K. Sezaki

Proceedings of the 20th Conference on Embedded Networked Sensor Systems, Boston, USA, 2022, New York, NY, USA

#### Detecting Single-Hand Riding with Integrated Accelerometer and Gyroscope of Smartphone

#### X. Dong, Z. Han, Y. Nishiyama, K. Sezaki

Adjunct Proceedings of the 2021 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2021 ACM International Symposium on Wearable Computers, 2021, Virtual, USA

#### HeadSense: A Head Movement Detecting System for Micro-Mobility Riders

Z. Han, X. Dong, Y. Nishiyama, K. Sezaki

Adjunct Proceedings of the 2021 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2021 ACM International Symposium on Wearable Computers, 2021, Virtual, USA

#### MiMoSense: An Open Crowdsensing Platform for Micro-Mobility

Z. Han, H. D. Nguyen, S. Aoki, Y. Nishiyama, K. Sezaki

2021 IEEE International Conference on Intelligent Transportation (ITSC), 2021

#### Towards Estimating UV Exposure Using GPS Signal Strength from a Carrying Smartphone

S. Higuma, K. Hatai, Y. Nishiyama, K. Sezaki

2021 IEEE International Conference on Smart Computing (SMARTCOMP), 2021, Irvine, Orange County, California, USA (Virtual Workshop)

#### A Run-time Dynamic Computation Offloading Strategy in Vehicular Edge Computing

H. D. Nguyen, S. Aoki, Y. Nishiyama, K. Sezaki

2021 IEEE 94th Vehicular Technology Conference (VTC2021-Fall), 2021, Online

#### An Online Task Offloading Strategy in Vehicular Edge Computing

H. D. Nguyen, S. Aoki, Y. Nishiyama, K. Sezaki

IEICE Society Conference 2021, 2021

#### Experience Sampling Tool for Repetitive Skills Training in Sports Using Voice User Interface

Y. Nishiyama, K. Sezaki

Adjunct Proceedings of the 2021 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2021 ACM International Symposium on Wearable Computers, 2021, Virtual, USA

#### Estimation of Greenhouse Gas Emission Reduction from Shared Micromobility System

H. Peng, Y. Nishiyama, K. Sezaki

2021 IEEE Green Energy and Smart Systems Conference (IGESSC), 2021, Long Beach, CA, USA

#### An Unsupervised Learning-based Approach for User Mobility Analysis of E-Scooter Sharing Systems

H. Ushijima, S. Aoki, P. Helinyi, Y. Nishiyama, K. Sezaki

2021 IEEE International Intelligent Transportation Systems Conference (ITSC), 2021

#### Towards Infectious Disease Risk Assessment in Taxis using Environmental Sensors

H. Ushijima, S. Ono, Y. Nishiyama, K. Sezaki

Distributed, Ambient and Pervasive Interactions, 2021, Cham

#### Towards Estimating UV Light Intensity Using GPS Signal Strength

S. Higuma, Y. Nishiyama, K. Sezaki

Adjunct Proceedings of the 2020 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2020 ACM International Symposium on Wearable Computers, 2020, Virtual Event, Mexico

#### iOS Crowd-Sensing Won't Hurt a Bit!: AWARE Framework and Sustainable Study Guideline for iOS Platform

Y. Nishiyama, D. Ferreira, Y. Eigen, W. Sasaki, T. Okoshi, J. Nakazawa, A. K. Dey, K. Sezaki

Distributed, Ambient and Pervasive Interactions, 2020, Cham

#### Using IOS for Inconspicuous Data Collection: A Real-World Assessment

Y. Nishiyama, D. Ferreira, W. Sasaki, T. Okoshi, J. Nakazawa, A. K. Dey, K. Sezaki

Adjunct Proceedings of the 2020 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2020 ACM International Symposium on Wearable Computers, 2020, Virtual Event, Mexico

## SelfGuard: Semi-Automated Activity Tracking for Enhancing Self-Protection against the COVID-19 Pandemic Y. Nishiyama, T. Yonezawa, K. Sezaki

Proceedings of the 18th Conference on Embedded Networked Sensor Systems, Virtual Event, Japan, 2020, New York, NY, USA

#### Mobile Sensing of Pedestrian Mobility and its Assessment

C. Song, M. Ito, Y. Nishiyama, K. Sezaki

IEICE Tech. Rep. 2020

#### Challenges of Parkinson's Disease: User Experiences with STOP

E. Kuosmanen, V. Kan, J. Vega, A. Visuri, Y. Nishiyama, A. K. Dey, S. Harper, D. Ferreira

Proceedings of the 21st International Conference on Human-Computer Interaction with Mobile Devices and Services, 2019, Taipei, Taiwan

#### Using Mobile Sensing Technology for Capturing People Mobility Information

C. Song, M. Ito, Y. Nishiyama, K. Sezaki

Proceedings of the 3rd ACM SIGSPATIAL International Workshop on Prediction of Human Mobility, 2019, Chicago, IL, USA

#### Capturing Subjective Time as Context and It's Applications (Poster)

T. Yonezawa, Y. Nishiyama, K. Hiroi, N. Kawaguchi

Proceedings of the 17th Annual International Conference on Mobile Systems, Applications, and Services, 2019, Seoul, Republic of Korea

#### Meal Photo SNS with Mutual Healthiness Evaluation for Improving Users' Eating Habits

Y. Eigen, Y. Nishiyama, T. Yonezawa, T. Okoshi, J. Nakazawa

Proceedings of the 2018 ACM International Joint Conference and 2018 International Symposium on Pervasive and Ubiquitous Computing and Wearable Computers, 2018, Singapore, Singapore

#### Fish Species Annotation System for Environmental Detection by Marine Life as a Sensor

N. İsokawa, W. Sasaki, Y. Nishiyama, T. Okoshi, J. Nakazawa

HCI Outdoors: A CHI 2018 Workshop on Understanding Human-Computer Interaction in the Outdoor, Canada, Montreal, 2018

#### Mobile-Based Monitoring of Parkinson's Disease

E. Kuosmanen, V. Kan, A. Visuri, J. Vega, <u>Y. Nishiyama</u>, A. K. Dey, S. Harper, D. Ferreira

Proceedings of the 17th International Conference on Mobile and Ubiquitous Multimedia, 2018, Cairo, Egypt

## Senbay: A Platform for Instantly Capturing, Integrating, and Restreaming of Synchronized Multiple Sensor-Data Stream Y. Nishiyama, A. K. Dey, D. Ferreira, T. Yonezawa, J. Nakazawa

Proceedings of the 20th International Conference on Human-Computer Interaction with Mobile Devices and Services Adjunct, 2018, Barcelona, Spain

#### Poster: Extensive Evaluation of Emotional Contagion on Smiling Selfies over Social Network

W. Sasaki, M. Obuchi, K. Egashira, N. Isokawa, Y. Furukawa, Y. Nishiyama, T. Okoshi, J. Nakazawa

Proceedings of the 15th Annual International Conference on Mobile Systems, Applications, and Services, 2017, Niagara Falls, New York, USA

#### Poster: NiSleep: Gamification-Friendly Quantitative Evaluation Methodology of Sleep Quality

K. Egashira, Y. Furukawa, Y. Nishiyama, T. Okoshi, J. Nakazawa, H. Tokuda

Proceedings of the 14th Annual International Conference on Mobile Systems, Applications, and Services Companion, 2016, Singapore, Singapore

#### Poster Abstract: SmileWave - Sensing and Analysis of Smile-Based Emotional Contagion over Social Network

W. Sasaki, Y. Furukawa, Y. Nishiyama, T. Okoshi, J. Nakazawa, H. Tokuda

2016 15th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN), 2016, Vienna, Austria

#### Senbay: Smartphone-Based Activity Capturing and Sharing Using Sensor-Federated Video

Y. Nishiyama, T. Okoshi, Y. Chen, T. Yonezawa, J. Nakazawa, H. Tokuda

Adjunct Proceedings of the 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2015 ACM International Symposium on Wearable Computers, 2015, Osaka, Japan

#### A robot control system for video streaming services by using dynamic encoded QR codes

M. Ogawa, T. Yonezawa, Y. Nishiyama, J. Nakazawa, H. Tokuda

2015 Eighth International Conference on Mobile Computing and Ubiquitous Networking (ICMU), 2015, Hakodate, Japan

#### Towards health exercise behavior change for teams using life-logging

Y. Nishiyama, T. Okoshi, T. Yonezawa, J. Nakazawa, K. Takashio, H. Tokuda

2014 IEEE 16th International Conference on e-Health Networking, Applications and Services (Healthcom), 2014, Natal, Brazil

### DALT: Detection Algorithm of Throwing Form Changing to Prevent the Baseball Player 's Throwing Related Injuries

Y. Nishiyama, T. Ito, T. Yonezawa, J. Nakazawa, K. Takashio, H. Tokuda

UbiHealth: 6th International Workshop on Ubiquitous Health and Wellness (Part of Pervasive 2012 conference), 2012

### Proceedings (non-refereed)

ウェアラブルデバイスを用いた乳幼児コンテクストの検知に向けた一検討

小野寺文香, 石岡陸, 西山勇毅, 瀬崎薫

情報処理学会第85回全国大会(電気通信大学),2023

#### Estimating Sunlight Using GNSS Signal Strength from Smartphone

Y. Nishiyama, K. Hatai, K. Tsubouchi, K. Sezaki

arXiv, 2022

#### A preliminary study for monitoring hygiene behaviors by using multiple sensors on a wrist

H. Zhuang, L. Xu, Y. Nishiyama, K. Sezaki

研究報告ユビキタスコンピューティングシステム (UBI),2022

#### イアラブルデバイスを用いた街歩き時におけるユーザの道迷い状態の検知

下条和暉, 西山勇毅, 瀬崎薫

研究報告ユビキタスコンピューティングシステム (UBI),2022

#### 腕時計型ウェアラブルデバイスを用いた会話時間計測手法の構築に向けて

小松勇輝, 下条和暉, 西山勇毅, 瀬崎薫

情報処理学会第84回全国大会(愛媛大学),2022

#### 無線マルチホップ連合学習へ向けた実装実験

小野翔多, 三好匠, 山崎託, 西山勇毅, 瀬崎薫

電子情報通信学会ソサイエティ大会,2022,オンライン

#### 移動体通信併用型MANETにおける端末密度を用いた中継領域制御

小野翔多,山崎託,三好匠,西山勇毅,瀬崎薫

情報通信マネジメント研究会 (ICM), 2022

#### ウェアラブルデバイスのマイクを用いたマスク装着状態の検知に向けて

小野翔多, 西山勇毅, 瀬崎薫

研究報告ユビキタスコンピューティングシステム (UBI), 2022

#### スマートウォッチを用いたマスク装着の促進手法

小野翔多, 西山勇毅, 瀬崎薫

情報処理学会 IoT行動変容学研究グループ キックオフシンポジウム, 2022

#### タクシー車両を用いたマイクロモビリティ再配置

牛島秀暢, 西山勇毅, 瀬崎薫

情報処理学会第84回全国大会(愛媛大学),2022

### スマートフォンのGNSSセンサを用いたUVインデックス推定

石岡陸, 坪内孝太, 西山勇毅, 瀬崎薫

研究報告ユビキタスコンピューティングシステム(UBI),2022

## ウェアラブルデバイスを用いた子育てコンテキストの検知に向けて

笠原有貴, 西山勇毅, 瀬崎薫

研究報告ヒューマンコンピュータインタラクション研究会(CHI), 2022, 石垣島

#### LPWAによる屋内混雑度推定に向けた基礎検討

細沼恵里,三好匠,山崎託,西山勇毅,瀬崎薫

電子情報通信学会ソサイエティ大会, 2022, オンライン

## Face-Touch Detection with Smartwatch by CNN: An Experimental Lab Study

荘昊昱, 韓増易, 西山勇毅, 瀬崎薫

電子情報通信学会ソサイエティ大会, 2022, オンライン

#### スマートフォンを用いたベビーカーのコンテキスト検知に向けた一検討

西山勇毅, 瀬崎薫

電子情報通信学会総合大会 (オンライン),2022

#### Using Turning Data for Micro-Mobility Rider Identification

韓增易,西山勇毅,瀬崎薫

電子情報通信学会ソサイエティ大会,2022,オンライン

#### 常時装着型イアラブルデバイスにおける割り込み可能タイミングの検討

下条和暉, 西山勇毅, 瀬崎薫

CSIS DAYS 2021, 2021

#### 集約型都市におけるライドシェアサービス導入効果のシミュレーション

小池優太郎, 西山勇毅, 瀬崎薫

CSIS DAYS 2021, 2021

#### 移動体通信併用形MANETにおける経路要求送信回数に基づく経路構築手法

小野翔多, 山崎託, 三好匠, 西山勇毅, 瀬崎薫

2021 電子情報通信学会ソサイエティ大会, 2021, オンライン

#### スマートウォッチを用いた子育て行動の推定に向けた一検討

笠原有貴, 西山勇毅, 瀬崎薫

計測自動制御学会計測部門スマートセンシングシステム部会, 2021

#### 感染症流行時におけるスマートフォンを用いた 大学生の身体活動量分析

arXiv, 2021

#### イヤラブルデバイスを用いた身体感覚記録・利活用システムの構築に向けて

西山勇毅, 瀬崎薫

研究報告ユビキタスコンピューティングシステム(UBI), 2021

#### 部屋毎の滞在時間特性を考慮した頑健な滞在場所推定手法 鈴木凌斗, 村上弘晃, 西山勇毅, 川原圭博, 瀬崎薫

研究報告ユビキタスコンピューティングシステム (UBI),2021

#### 感染症予防行動を促進させるインセンティブモデルに関する一検討

陳美怡, 幡井皓介, 西山勇毅, 瀬崎薫

研究報告ユビキタスコンピューティングシステム (UBI),2021

#### 感染症予防行動を促進させるインセンティブモデルの構築に向けて

陳美怡, 幡井皓介, 西山勇毅, 瀬崎薫

第20回情報科学技術フォーラム(FIT2021), 2021, オンライン

### BLEビーコンを用いた屋内位置推定システムの設計と実装

山下陸, 西山勇毅, 小松寬弥, 川原圭博

研究報告ユビキタスコンピューティングシステム (UBI),2020

#### GPS 信号受信状態を用いた紫外線量推定手法の検討

日隈壮一郎, 西山勇毅, 瀬崎薫

研究報告ユビキタスコンピューティングシステム (UBI), 2020

### モバイルコンピューティングによるエモーショナル・イーティングの検知

栄元優作, 佐々木航, 西山勇毅, 大越匡, 中澤仁

研究報告ユビキタスコンピューティングシステム (UBI), 2020

#### 環境センサを用いたタクシー車室内における感染症リスク評価に関する一検討

牛島秀暢, 西山勇毅, 小野翔多, 瀬崎薫

研究報告モバイルコンピューティングと新社会システム研究会 (MBL), 2020, オンライン

Non-Negative Tensor Factrization を用いたドックレス型マイクロモビリティの利用形態分類手法の検討 牛島秀暢,青木俊介,西山勇毅,瀬崎薫

研究報告高度交通システムとスマートコミュニティ (ITS),2020

スマートフォンセンサを用いた気分情報を基にした都市空間評価手法に向けて神村潤, 西山勇毅, 瀬崎薫

電子情報通信学会電子情報通信学会総合大会, 2020, 広島大学東広島キャンパス

In-the-Wild実験におけるiOS用モバイルセンシングフレームワークの性能評価 西山勇毅, 佐々木航, 栄元優作, 本木悠介, 大越匡, 中澤仁, 瀬崎薫 電子情報通信学会技術研究報告: 信学技報, 2020, 大濱信泉記念館 (石垣島)

人の限定合理性を超越した行動変容支援に向けた情報プラットフォームの設計 大越匡, 西山勇毅, 佐々木航, 栄元優作, 中澤仁 研究報告ユビキタスコンピューティングシステム(UBI).2019

HealthFight: 多数決を用いた食習慣改善ソーシャルメディア 栄元優作, 江頭和輝, 河野慎, 西山勇毅, 大越匡, 米澤拓郎, 高汐一紀, 中澤仁 研究報告ユビキタスコンピューティングシステム(UBI), 2017

SpoTrip:観光客リピータ化促進のための隠れスポット情報提供システムの評価 片山晋, 礒川直大, 小渕幹夫, 西山勇毅, 大越匡, 米澤拓郎, 中澤仁, 高汐一紀, 徳田英幸 電子情報通信学会技術研究報告 = IEICE technical report: 信学技報, 2017

Likeyboard: ライフログデータ共有簡易化のためのスマートフォンキーボードインタフェース 石川伶, 佐々木航, 西山勇毅, 大越匡, 米澤拓郎, 中澤仁, 高汐一紀, 徳田英幸 研究報告ユビキタスコンピューティングシステム(UBI), 2017

TalkingNemoPad: Aquarium Fish Talks Its Mind for Breeding Support through Your iPad 礒川直大,西山勇毅,大越匡,中澤仁,高汐一紀,徳田英幸 研究報告ユビキタスコンピューティングシステム(UBI). 2017

MyTime:タイムマネジメントの促進を目的としたアプリケーション使用時間自動記録システムの提案 小出粋玄,西山勇毅,大越匡,米澤拓郎,高汐一紀,中澤仁,徳田英幸 電子情報通信学会技術研究報告 = IEICE technical report:信学技報,2016

MyFactor: ライフログを用いたユーザの内面状態に関する因子分析 小渕幹夫, 古川侑紀, 西山勇毅, 大越匡, 米澤拓郎, 高汐一紀, 中澤仁, 徳田英幸 電子情報通信学会技術研究報告, 2016

NiSleep: ゲーミフィケーションを適用可能な睡眠評価 江頭和輝,古川侑紀,<u>西山勇毅</u>,大越匡,米澤拓郎,中澤仁,高汐一紀,徳田英幸 研究報告ユビキタスコンピューティングシステム(UBI), 2016

Aqua Mapping: 水槽を介した観賞魚とのインタラクションシステム 礒川直大, 西山勇毅, 大越匡, 米澤拓郎, 中澤仁, 高汐一紀, 徳田英幸 研究報告ユビキタスコンピューティングシステム(UBI), 2015

Senbay:活動促進のためのスマートフォンを利用したセンサデータ統合型動画記録・共有・分析プラットフォーム 西山勇毅,米澤拓郎,中澤仁,徳田英幸

知的環境とセンサネットワーク研究会(ASN), 電子情報通信学会技術研究報告 = IEICE technical report : 信学技報, 2015, 長野

加速度センサのみを用いた移動手段判定アルゴリズムの評価 古川侑紀, 西山勇毅, 大越匡, 中澤仁, 高汐一紀, 徳田英幸 情報処理学会研究報告. MBL, 「モバイルコンピューティングとユビキタス通信研究会研究報告], 2014

動画二次元コードを用いたウェアラブルセンシングのための情報記録・配信手法 米澤拓郎,西山勇毅,小川正幹,中澤仁,徳田英幸 第19回人間情報学会,2014

チームの動機づけにおける個人の貢献度の可視化に関する一検討 西山勇毅,米澤拓郎,中澤仁,徳田英幸 情報処理学会研究報告.UBI、[ユビキタスコンピューティングシステム], 2013

野球選手の投球動作変化を用いた疲労度取得手法の提案:投球障害予防支援システム構築に向けて西山勇毅、瀧本拓哉、米澤拓郎、中澤仁、高汐一紀、徳田英幸

-電子情報通信学会技術研究報告. USN, ユビキタス・センサネットワーク : IEICE technical report, 2011



## Affiliation

Aiiiliat	1011				
	ation Processing Society of Japan (IPSJ) itous Computing System (UBI) - Steering Committee	Member Apr. 2011 - Current			
	ciety of Instrument and Control Engineers (SICE)	Member			
SIG Smart	Sensing System (SSS) - Steering Committee	Apr. 2020 - Current			
Associa	Association for Computing Machinery (ACM)  Member  Apr. 2013 - Current				
Institute of Electrical and Electronics Engineers (IEEE)					
		Apr. 2013 - Current			
Japan Society of Physical Education, Health and Sport Sciences  Member Apr. 2022 - Current					
Japan S	Society for Software Science and Technology	Member			
		Feb. 2023 - Current			
Confer	ence Organizer				
2023	Publicity Chair, The 13th International Conference on the Internet of Things (IoT2023)	Nagoya, Japan			
2022	<b>Program Committee</b> , The 4th International Conference on Activity and Behavior Computing (ABC2022)	London, United Kingdom (Hybrid)			
2021	<b>Publicity Chair</b> , The 19th ACM International Conference on Mobile Systems, Applications, and Services (ACM MobiSys2021)	Mars, Solar System			
2021	<b>Web Chair</b> , The 13th International Conference on Mobile Computing and Ubiquitous Networking (ICMU2021)	Tokyo, Japan			
2021	<b>Program Committee</b> , The 3rd International Conference on Activity and Behavior Computing (ABC2021)	Bangkok, Thailand (Online)			
2020	<b>Publicity Chair</b> , The 18th ACM Conference on Embedded Networked Sensor Systems (ACM SenSys2020)	Tokyo, Japan			
2019	Program Committee for Late Breaking Results, The 21st International Conference on Human-Computer Interaction with Mobile Devices and Services (ACM MobileHCI2019)	Taipei, Taiwan			
2018	Technical Program Committee, The 9th International Conference on Mobile Computing, Application and Services (EAI MobiCASE2018)	Osaka, Japan			
2018	<b>Co-organizer</b> , Ubiquitous Mobile Sensing: Behaviour, Mood, and Environment (colocated workshop with ACM UbiComp 2018)	Singapore			
2018	<b>Web Chair</b> , The 24th IEEE International Conference Embedded and Real-Time Computing Systems and Applications (IEEE RTCSA2018)	Hakodate, Japan			
2017	<b>Co-organizer</b> , The 4th International Workshop on Ubiquitous Mobile Instrumentation (UbiMI2017) (collocated with ACM UbiComp 2017)	Maui, Hawaii, USA			
2016	<b>Co-organizer</b> , The 3rd International Workshop on Ubiquitous Mobile Instrumentation (UbiMI2016) (collocated with ACM UbiComp 2016)	Heidelberg, Germany			
Editorial Board					
2022	<b>Editorial Board Member</b> , Journal of Information Processing (JIP) [Special Issue of Ubiquitous Computing Systems (XI)]				
2022	Associate Editor, Transactions of the Society of Instrument and Control Engineers				
2021	Associate Editor, Transactions of the Society of Instrument and Control Engineers  Editorial Board Member, Journal of Information Processing (JIP) [Special Issue of Ubiquitous  Computing Systems (X)]				
2020	Accordate Editor Transactions of the Society of Instrument and Control Engineers				

2020 **Associate Editor**, Transactions of the Society of Instrument and Control Engineers

### Reviewer (Journal)

	2022	External Reviewer, International Journal of Human - Computer Studies
	2022	<b>External Reviewer</b> , Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous
	2022	Technologies (ACM IMWUT)
	2022	<b>External Reviewer</b> , Journal of Control, Measurement, and System Integration (SICE JCMSI)
	2021	External Reviewer, International Journal of Human - Computer Studies
2	2021	<b>External Reviewer</b> , Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous
		Technologies (ACM IMWUT)
	2021	External Reviewer, MDPI Sensors
	2021	<b>External Reviewer</b> , Journal of Control, Measurement, and System Integration (SICE JCMSI)
2	2020	<b>External Reviewer</b> , Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous
		Technologies (ACM IMWUT)
2019	2010	<b>External Reviewer</b> , Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous
	2019	Technologies (ACM IMWUT)
2	2018	<b>External Reviewer</b> , Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous
	2010	Technologies (ACM IMWUT)

## Reviewer (Main conference, workshop, and poster/demo papers)

2022	<b>External Reviewer</b> , The ACM International Conference on Mobile Human-Computer Interaction (ACM MobileHCI2022)	Vancouver, Canada
2022	<b>External Reviewer</b> , IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC2022)	Czech Republic
2022	<b>External Reviewer</b> , The ACM CHI Conference on Human Factors in Computing Systems is the premier international conference of Human-Computer Interaction (HCI), Work-in-Progress	New Orleans, LA
2021	<b>External Reviewer</b> , The ACM international joint conference on pervasive and ubiquitous computing (ACM UbiComp2021), Demo and Poster	Virtual
2019	<b>External Reviewer</b> , The 17th ACM International Conference on Mobile Systems, Applications, and Services (ACM MobiSys2019), Rising Stars Forum	Seoul, South Korea
2018	<b>External Reviewer</b> , The 17th International Conference on Mobile and Ubiquitous Multimedia, Rising Stars Forum (MUM2018)	Cairo, Egypt
2018	<b>External Reviewer</b> , The 1st Workshop on Mining and Learning from Smartphones Apps for Users (AppLens2018), In conjunction with the 2018 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp 2018)	Singapore
2018	<b>External Reviewer</b> , The 2nd International Workshop on Emotion Awareness for Pervasive Computing with Mobile and Wearable Devices (EmotionAware2018) with IEEE PerCom2018	Athens, Greece
2017	<b>Reviewer</b> , The 4th International Workshop on Ubiquitous Mobile Instrumentation (UbiMI2017) (collocated with ACM UbiComp 2017)	Maui, Hawaii
2017	<b>Reviewer</b> , The 3rd International Workshop on Ubiquitous Mobile Instrumentation (UbiMI2016) (collocated with ACM UbiComp 2016)	Heidelberg, Germany

## **Development**\_

### SelfGuard: Self-tracking Application for Promoting Infection Prevention **Behavior**

AppStore

https://sites.google.com/g.ecc.u-tokyo.ac.jp/selfguard/

2020-Current

### MOCHA: Mobile Check-in Application for Safe and Reassuring Campus Life

AppStore/GoolgePlay

Flutter based iOS/Android Appn

2020-Current

https://mocha.t.u-tokyo.ac.jp/

### SFC-GO (Going-Well Online): Remote Physical Education Support Application for SFC (Keio University Shonan Fujisawa Campus)

TestFlight

Flutter based iOS App

iOS App

2020-2022

https://www.jn.sfc.keio.ac.jp/news/2020/07/06/2094/

eSense Client GitHub/AppStore

iOS App & Library

• AppStore: https://apps.apple.com/jp/app/esense-client/id1494692894

• GitHub: https://github.com/tetujin/ESense

## SenbayKit: A Platform for Instantly Capturing, Integrating, and Restreaming of Synchronized Multiple Sensor-data Streams

GitHub

2017-Current

2018-Current

iOS/Android/macOS/Web-browser Library

• Homepage: http://www.senbay.info

• SenbayKit-iOS: https://github.com/tetujin/SenbayKit

- SenbayKit-macOS: https://github.com/tetujin/SenbayKit-macos
- SenbayKit-CLI: https://github.com/tetujin/SenbayKit-CLI
- SenbayKit-Browser: https://github.com/tetujin/SenbayKit-Browser

#### STOP-PD: Sentient Tracking of Parkinson's

GitHub/AppStore

iOS App

https://github.com/awareframework/STOP-iOS

2018-2020

#### AWAREFramework-iOS: AWARE Framework for iOS

GitHub/CocoaPods

iOS Library

• CocoaPods: https://cocoapods.org/pods/AWAREFramework

• GitHub: https://github.com/tetujin/AWAREFramework-iOS

2018-Current

#### AWARE Client iOS: Mobile Context Instrumentation Framework

GitHub/AppStore

2015-Current

iOS App

• Homepage: http://www.awareframework.com/

• GitHub: https://github.com/tetujin/aware-client-ios-v2

• AppStore: https://apps.apple.com/jp/app/aware-client-v2/id1455986181

## **Skills**

**DevOps** GCP, Firebase, AWS, git, Travis

Platform iOS, macOS, watchOS, Android, Linux-based OS (Ubuntu, CentOS, Raspberry Pi等), Jetson, ESP32 (M5 Stack等)

**Back-end** Flask, FastAPI, Node.js, REST API, SQL&NoSQL-based DB, Realm

**Front-end** Flutter, HTML5

**Programming** Python, Swift, Dart2, Objective-C, C, JAVA, JavaScript

**Languages** English, Japanese