Spatiotemporal Researcher | Data & AI Cloud Specialist

KOHEI YAMAMOTO

Nationality: Japanese
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KEY SKILLS

Research Interests
Spatiotemporal Analysis
Human Mobility
Computational Social Science
Locational Big Data
Wireless Localisation
Applied Machine Learning
Geographic Information System
HC Interaction/Accessibility

Technical Interests
Azure (Data & AI)
…

Natural Languages
Japanese (Native)
English (Fluent: TOEIC 935/990)

Licences
Car Licence (Stickshift, Japan)

Computer Languages, Technical Skills & Certificates

Python, Scala, Java, ObjC, C, Swift, Assembly

WORK & RESEARCH EXPERIENCE

MICROSOFT

DATA & AI CLOUD ASSOCIATE — **Apr 2021 – Present**
CLOUD SPECIALIST INTERN — **Oct 2020**
TECHNICAL ACCOUNT MANAGER INTERN (DECLINED OFFER) — **Aug 2018 – Sep 2018**
Microsoft Japan, Japan

- Engage in Microsoft cloud services Azure and deliver technical envisions and system implementations to help companies migrate their data assets and services into the cloud environments. Resolving issues and planning insights with the help of machine intelligence is also the primary work.

NATIONAL UNIVERSITY OF SINGAPORE

ADJUNCT RESEARCHER (CONTRACT FOR SERVICES) — **Apr 2021 – Present**
RESEARCH ASSISTANT — **Feb 2021 – Mar 2021**
Department of Architecture, School of Design and Environment, Singapore

- As a member of research project with Tsinghua university, demonstrate data modelling and integration algorithm considering environmental-behavioural parameters like structural information or users' attributes. The main objective is to well model and extract semantics from the human mobility in a building which has unique structures.

IBM RESEARCH

STUDENT FELLOW — **May 2018 – Jul 2018**
Accessibility Team, Japan

- As a member of accessibility team, tackled research on characteristic movements of visually impaired persons, which affects localisation accuracy, and improved it by fusing several localisation techniques such as physical, radio wave and image (AR) sensors
  Award – Honourable Mention Award, IPSJ, Japan, 2018.
  Award – Yamashita (Founder) SIG Annual Research Award, IPSJ, Japan, 2020.

YAHOO JAPAN RESEARCH

COLLABORATIVE RESEARCHER (IN GRADUATION RESEARCH) **Mar 2017 – Nov 2018**
Data Science Unit, Japan

- Tackled collaborative research (with my professor) on counteracting aged deterioration of localisation model and cogitated a training datasets selection algorithm upon machine learning and clustering WiFi big data.
  Award – Best Paper Nomination, IEEE IPIN, Italy, 2019.

ENGAGEMENTS TO FILL MY GAP YEARS

POL, DATA SCIENTIST INTERN **Aug 2020 – Mar 2021**
*Sep 2020 – Jan 2021 (until starting a full-time job after finishing master's study) – Besides engagement at **Microsoft** as stated elsewhere*

MERCARI (MERPAY), PRODUCT MANAGER INTERN **Apr 2019 – Jun 2019**
GUMGUM, AD MANAGER/TOOL ENGINEER INTERN **Jan 2019 – Mar 2019**
(MICROSOFT AZURE OSS PROJECT – 5500USD AWARDED) **Oct 2018 – May 2019**
(TRANSLATOR of GLENLIVET WHISKY'S eLEARNING) **Mar 2018 – Mar 2019**
*Apr 2018 – Jul 2019 (until starting master's study after finishing bachelor's) – Besides engagements at **IBM Research**, **Microsoft** & **Yahoo J***

EDUCATION

MASTER OF SCIENCE – in Applied Geographic Information Systems **Aug 2019 – Aug 2020**
***National University of Singapore (NUS)**, Singapore*
GPA 4.85/5 – One of top-placed graduates. (academic standing to cohort is not provided)

BACHELOR OF ENGINEERING – in Computer Science **Apr 2014 – Mar 2018**
***Ritsumeikan University**, Japan*
GPA 4.63/5 – Top-placed graduate in the CS department. (unofficial)
During my gap year, I formally enrolled in a master program and withdrew in the end, Apr 2018 – Jun 2019.

REVIEWED PUBLICATIONS

- **Yamamoto, K.**, Zhou, G. and Feng, C., 2020. Research Relating to Extraction of Human Dynamics and Patterns Analysing WiFi Signatures. (Under Peer-review in the Nature Group)
- Tran, P., Zhao, M., **Yamamoto, K.**, Minet, L., Nguyen, T. and Balasubramanian, R., 2020. Cyclists' personal exposure to traffic-related air pollution and its influence on bikeability. Transportation Research Part D: Transport and Environment, 88, 102563.
- Tsubouchi, K., **Yamamoto, K.** and Nishio, N., 2019. No-Sweat Detective: No Effort Anomaly Detection for Wi-Fi-Based Localisation. In Proceedings of the 2019 IEEE International Conference on Indoor Positioning and Indoor Navigation, 30 September-3 October 2019 Pisa, Italy. 1-8.
  - **Award** – Best Paper Nomination, 2019.
- **Yamamoto, K.**, Kan, F., Murao, K., Mochizuki, M. and Nishio, N., 2019. Manual Grading Task Support System with Interactive Correction Mechanism. The Transactions of Human Interface Society, 21 (1), 73-84.
- **Yamamoto, K.**, Murata, M. and Sato, D., 2018. Localisation Method Considering Characteristic Movements of Visually Impaired Persons (in Japanese). In Proceedings of the 2018 IPSJ SIG AAC Conference on Assistive and Accessible Computing, 24-25 August 2018 Tokyo, Japan. 10, 1-7.
  - **Award** – Yamashita (Founder) SIG Annual Research Award, 2020. (Peer/Committee-reviewed)
  - **Award** – Honourable Mention Award, 2018.
- **Yamamoto, K.**, Kan, F., Murao, K., Mochizuki, M. and Nishio, N., 2018. GERMIC: Application of Gesture Recognition Model with Interactive Correction to Manual Grading Tasks. In Proceedings of the 2018 EAI International Conference on Mobile Computing, Applications and Services. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, 28 February-2 March 2018 Osaka, Japan. 240.
- Kawanaka, K., **Yamamoto, K.**, Tsubouchi, K., Murao, K., Mochizuki, M. and Nishio, N., 2017. Detecting Aged Deterioration of a Radio Base Station Map for Wi-Fi Positioning. In Proceedings of the 2017 ACM International Joint

Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2017 ACM International Symposium on Wearable Computers (Ubicomp'17), 11-15 September 2017 Hawaii, USA. 547-556.

- Kan, F., **Yamamoto, K.**, Murao, K., Mochizuki, M. and Nishio, N., 2017. Implementation of Scoring System by Handwriting Recognition and Interactive Correction Mechanism (in Japanese). In Proceedings of the 2017 IPSJ Conference on Multimedia, Distributed, Cooperative and Mobile Symposium, 28-30 June 2017 Hokkaido, Japan. 1754-1760.

ARTICLES (THESES & OTHERS)

- **Yamamoto, K.**, 2020. Juxtaposed Analysis of Individual and Group Movements from WiFi Signatures. M.Sc. Thesis (Marked 5.0/5.0). (Research Advisors: Zhou, G. and Feng, C.)
- **Yamamoto, K.**, 2018. Anti-Aging Calibration Methodology with User Log-Oriented Anomaly Detection for Wi-Fi Fingerprinting Localisation. B.Eng. Thesis (Marked 5.0/5.0). (Research Advisor: Nishio, N.)
    - **Award**: Best Presenter Award.
- **Yamamoto, K.**, Tsubouchi, K. and Nishio, N., 2017. Anomaly Detection Method Specialized for Aging of Wi-Fi Localisation Model (in Japanese). In Proceedings of the 2017 Kobe University Ubiquitous and Wearable Workshop, 22-23 December 2017 Hyogo, Japan. 43.

PRESENTATIONS

- **Yamamoto, K.**, 2019. No-Sweat Detective: No Effort Anomaly Detection for Wi-Fi-Based Localisation. At the 2019 IEEE International Conference on Indoor Positioning and Indoor Navigation, 30 September-3 October 2019 Pisa, Italy.
- **Yamamoto, K.**, 2018. Localisation Method Considering Characteristic Movements of Visually Impaired Persons (in Japanese). At the 2018 IPSJ SIG AAC Conference on Assistive and Accessible Computing, 24-25 August 2018 Tokyo, Japan.
- **Yamamoto, K.**, 2018. GERMIC: Application of Gesture Recognition Model with Interactive Correction to Manual Grading Tasks. At the 2018 EAI International Conference on Mobile Computing, Applications and Services, 28 February-2 March 2018 Osaka, Japan.
- **Yamamoto, K.**, 2018. Anti-Aging Calibration Methodology with User Log-Oriented Anomaly Detection for Wi-Fi Fingerprinting Localisation. At the B.Eng Thesis Defence, 8 February Shiga, Japan.
- **Yamamoto, K.**, 2017. Anomaly Detection Method Specialized for Aging of Wi-Fi Localisation Model (in Japanese). At the 2017 Kobe University Ubiquitous and Wearable Workshop, 22-23 December 2017 Hyogo, Japan.
- **Yamamoto, K.**, 2017. Cross-Interactivity in EdTech. At the 2018 Japan-China Conference of University Presidents as a representative, 18-22 October 2017 Dalian, China.
- **Yamamoto, K.**, 2017. Detecting Aged Deterioration of a Radio Base Station Map for Wi-Fi Positioning. At the 2017 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2017 ACM International Symposium on Wearable Computers (Ubicomp'17), 11-15 September 2017 Hawaii, USA.
- **Yamamoto, K.**, 2017. Implementation of Scoring System by Handwriting Recognition and Interactive Correction Mechanism (in Japanese). At the 2017 IPSJ Conference on Multimedia, Distributed, Cooperative and Mobile Symposium, 28-30 June 2017 Hokkaido, Japan.
- **Yamamoto, K.**, 2016. Acceleration of Mutual Interaction Using IT Media. As a delegation to USA from the Ministry of Foreign Affairs of Japan, 8-15 March San Jose, USA.

AWARDS

- Yamashita (Founder) SIG Annual Research Award, IPSJ, 2020.
- Best Paper Nomination, IEEE IPIN, 2019.
- Repayment Exemption from JASSO Student Loans for Excellent Achievements, **3,100 USD**, 2019.
- Honourable Mention Award, IPSJ SIG AAC (Assistive and Accessible Computing), 2018.
- Award for student creating the future, **1,000 USD**, 2018.

- Dean's Award for outstanding student, **100 USD**, 2018.
- Award for promising and prospective student, **4,500 USD**, 2017.
- Saionji (Founder) Memorial Award, award for the most outstanding student, **6,000 USD**, 2017.
- Saionji (Founder) Memorial Award, award for the most outstanding student, **7,000 USD**, 2016.
- Award for the author of a well-analysed experiment report on MIPS・TCP/IP, **500 USD**, 2016.
- Saionji (Founder) Memorial Award, award for the most outstanding student, **7,000 USD**, 2015. (1USD = 100JPY)

OTHER NOTABLE ENGAGEMENTS

- **Delegate to China as a Representative** – As a representative of the university, delegated to Japan-China Universities' President's Conference to discuss "IT, tertiary education and AI", Oct 2017.
- **Sony, Software Engineer Intern** – Built load balance on virtual multi-network topologies for 4K broadcasts, Feb 2017.
- **Delegate to the U.S. from MOFA** – Delegated to the U.S. for the national purpose to accelerate mutual (Japan-U.S.) interaction utilising IT media; promoted by Ministry of Foreign Affairs of Japan, Feb 2016.