Kohei YAMAMOTO

Nationality: Japanese, Age: 24 (as of June 8th, 2020)
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Skills and Abilities

Interests: Four-Dimensions (Spatiotemporal) Data Analytics, Locational Big Data, Computational Social Science, Machine Learning, Localisation, Human Computer Interaction, Accessibility
Natural Languages: Japanese (Native), English (Fluent: TOEIC 935/990)
Computer Languages: Python (5 years), Scala, Java, ObjC, C, Swift, Assembly

Education and Research Experience

M.Sc., Applied Geo. Information Systems, National University of Singapore*4, 2019-20

Concentrations: Spatiotemporal Data Analytics, Computational Social Science, Locational Big Data
GPA: 4.85/5.00 – At least, one of top-placed graduates (academic standing to cohort is not provided).

Student Researcher, IBM Research*3, 2018

Concentrations: Localisation, Human Computer Interaction, Accessibility
Contributions: 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 e.g. physical, radio wave and image (AR) sensors.
Award: Honourable Mention Award, IPSJ, Japan, 2018.
Award: Yamashita SIG Annual Research Award, IPSJ, Japan, 2020.

Collaborative Researcher, Yahoo Japan Research*2, 2017-18

Concentrations: Localisation, Locational Big Data, Machine Learning, Spatiotemporal Data Analytics
Contributions: Tackled collaborative research on counteracting aged deterioration of localisation model and cogitated dataset selection algorithm upon transfer learning and clustering.
Award: Nomination to Best Paper, IEEE IPIN, 2019.

B.Eng, Computer Science, Ritsumeikan University*1, 2014-18

Concentrations: Human Computer Interaction, Machine Learning, CPU Architecture
GPA: 4.63/5.00 – Top-placed graduate.
Note: After graduation, I took one year off while formally enrolling in master program (withdrawn).

Publications (Peer-Reviewed Articles)

*4 **Yamamoto, K.**, Zhou, G. and Feng, C., 2020. Research Related to Extraction of Human Dynamics and Patterns Analysing WiFi Signatures. (Writing in progress)

*4 Tran, P., Zhao, M., **Yamamoto, K.**, Minet, L., Nguyen, T. and Balasubramanian, R., 2020. Improvement of sustainable cycling index with the integrated evaluation of cyclists' personal exposure to airborne particles. (Under peer-review)
Author Contributions: Implementation of deep convolutional model of semantic segmentation.

*2 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: Nomination to Best Paper.

Author Contributions: Field data collection (one year), Cogitation and Implementation of the methodology, Evaluation and Formal Analysis (Yet, taken over to the first author to prioritise my family/relative matter).

*1 **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.

*3 **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: IPSJ Yamashita SIG Annual Research Award, 2020 (Peer/Committee-Reviewed).

Award: Honourable Mention Award, 2018.

*1 **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.

*2 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.

Author Contributions: Code screening, Research refining and Deeper analysis.

*1 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.

Author Contributions: Cogitation and Implementation of the methodology, User Evaluation and Formal Analysis (Yet, Conceptualisation is owed to the first author).

Publications (Thesis and Others)

*4 **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.)

*1 **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

*2 **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

*2 **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.

*3 **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.
Award: Honourable Mention Award.

*1 **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.

*1 **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.
Award: Best Presenter Award.

*2 **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.

*1 **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.

*2 **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.

*1 **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.

*1 **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 and Financial Budgets

IPSJ Yamashita SIG Research Award, one of the most prestigious annual research awards of IPSJ, 2020

Nomination to Best Paper, 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, Top award for the most outstanding student, **6,000 USD**, 2017

Saionji (Founder) Memorial Award, Top 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, Top award for the most outstanding student, **7,000 USD**, 2015

(1 USD = 100 JPY)

Professional Experience

Product Manager Intern, Mercari (Merpay), 2019

Worked on data analysis, UI-UX research and project managements

Ad Management Intern, GumGum, 2019

Worked on ad management on Web and implemented internal Web tools

Technical Account Manager Intern, Microsoft, 2018

Tackled information silo and implemented mock-up to study the effectiveness on a global scale, alongside of visiting customers

Software Engineer Intern, Sony, 2017

Built load balance on a virtual multi-network topology for 4K broadcasting

Notable Projects

Microsoft Open-Source Software Project, Microsoft personally offered me 3,000 USD worth of Azure cloud platform to develop location-based mobile system with real-time notifications. This project was awarded 2,500 USD from the university, 2018-19

General Video Editor on Behalf of Microsoft Japan: During the internship, I was in charge of CG/audio/video editing to create a video recapping Microsoft culture, 2018

eLearning Content Creation/Translation for Whisky Maker Glenlivet: Received orders personally from a company in Switzerland, 2018

Delegation 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", 2017

Delegation to 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, 2016