# Haru Kaneko

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### **BACKGROUND**

2022 - Now Kyushu Institute of Technology Doctor | Department of Life Science and Systems Engineering.

2020 - 2022 Kyushu Institute of Technology Master | Department of Human Intelligence Systems.

2016 - 2020 Kyushu Institute of Technology Bachelor | Department of System Design and Informatics.

#### **SUMMARY**

I am a last-year Ph.D. student at Kyushu Institute of Technology. I have strengths in analyzing and predicting the future using time series data, particularly in Healthcare and Sensor data. I also have good experience in Big Data with clustering, machine learning, deep learning, and statistical tests. Currently, I use care record data (health care records of elderly who live in the long-term care facility) to analyze and predict the elderly's future behavior. I used feature importance, SHAP, and other analyses to identify behavioral patterns and individual differences among the elderly. In addition, using this prediction I also developed a function of mobile application to give feedback about prediction results to caregivers to reduce their workload.

My research interests include:

- Predicting and forecasting human behavior using data. Prediction of behavior and health status, especially using health records.
- Analyzing individual differences in health information and learning to account for individual differences (personalization).

## PUBLICATIONS/CONFERENCES (only first author papers)

[1] (Reviewed) **Haru Kaneko**, Sozo Inoue: "Toward Pioneering Sensors and Features Using Large Language Models in Human Activity Recognition", UbiComp '23: Adjunct Proceedings of the 2023 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2023 ACM International Symposium on Wearable Computers (HASCA), (2023), <a href="https://doi.org/10.48550/arXiv.2306.16017">doi.org/10.48550/arXiv.2306.16017</a>.

[2] **Haru Kaneko**: "Automatic Generation of Care Record Contents Using Machine Learning (In Japanese)", Master Thesis, pp 1-55, (2022).

[3] **Haru Kaneko**, Masatoshi Uchimura, Koki Miyake, Sozo Inoue: "Toward Use and Analysis of Scientific Care Information System LIFE data (In Japanese)", IPSJ SIG UBI Technical Reports, Vol. 2022, No. 12, pp 1-7, (2022), Online.

[4] **Haru Kaneko**, and Sozo Inoue: "Analysis of Individual Differences Among Elderlies for Automatic Generation of Care Records (In Japanese)", Multimedia, Distributed, Cooperative, and Mobile Symposium 2022 (DICOMO2022), pp 1-5, (2022), Online,

[5] **Haru Kaneko**, Muhammad Fikry, Sozo Inoue: "Development of Care Forecasting and Tracing Systems in Nursing and Medical Care (In Japanese)", IPSJ SIG UBI Technical Reports, pp 1-7, (2022), Tokyo,

[6] (Reviewed) **Haru Kaneko**, Tahera Hossain, Sozo Inoue: "Estimation of Record Contents for Automatic Generation of Care Records", Human Activity Recognition Challenge, Springer Nature, Vol. 204, pp 289-306, (2021), <a href="https://doi.org/10.1007/978-981-15-8944-7\_18">doi.org/10.1007/978-981-15-8944-7\_18</a>. Kitakyushu Japan,

[7] **Haru Kaneko**, Tahera Hossain, Sozo Inoue: "Trend Analysis by Record Item for Automatic Generation of Care Records", Multimedia, Distributed, Cooperative, and Mobile Symposium (DICOMO2021), pp 1-9, (2021), Online.

[8] (Reviewed) **Haru Kaneko**, Tahera Hossain, Sozo Inoue: "Analysis of Feature Importances for Automatic Generation of Care Records", UbiComp '21: 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 (HASCA), No. 5, pp 316–321, (2021), <a href="https://doi.org/10.1145/3460418.3479354">doi.org/10.1145/3460418.3479354</a>. Virtual, USA Online,

[9] **Haru Kaneko**: "Estimate the Recorded Detail of Care Records by Machine Learning", Bachelor Thesis, pp 1-31, (2020), lizuka, [10] Haru Kaneko, Sozo Inoue: "Toward Estimate Record Contents for Automatic Generation of Care Records (In Japanese)", IPSJ SIG UBI Technical Reports, Vol. 2020, No. 41, pp 1-6, (2020), Nagoya, Japan Online.

[11] **Haru Kaneko**, Sozo Inoue: "Analysis of Individual Differences Among Elderlies for Automatic Generation of Care Records (In Japanese)", Multimedia, Distributed, Cooperative, and Mobile Symposium (DICOMO2022), pp 1-7, (2020), Online.

[12] ( Reviewed ) **Haru Kaneko**, Tahera Hossain, Sozo Inoue: "Implementation of Care Records Automatic Generation Function in a Care Record Application", The 40th Joint Conference on Asia-Pacific Association of Medical Informatics (APAMI), pp 1-6, (2020),

[13] **Haru Kaneko**, Sozo Inoue: "Toward Automatically Generate of Care Records in Care Facilities (In Japanese)", Proceedings of Japan Society for Fuzzy Theory and Intelligent Informatics, pp 2-5, (2019), Izuka.

#### REFERENCES

My supervisor is Prof Sozo Inoue, sozo@sozolab.jp, https://sozolab.jp