HIROKI KAWAHARA

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Graduate School of Science and Engineering, Kagoshima University

Center for Management of Information Technologies ⋄ 1-21-35, korimoto, Kagoshima, Japan

SUMMARY

1. Ph.D. candidate specializing in Human-Computer Interaction (HCI) with research experience in Human-Food Interaction and stereoscopic vision. Seeking full-time research positions in the field of interactive technologies.

2. Developed robots as part of a university circle activity and has a track record of presentations at top-tier HCI conferences and securing research funding from JST (Japan Science and Technology Agency).

3. Gained internship experience in developing web applications incorporating Large Language Models (LLMs) and analyzing communication security in vehicles, demonstrating a combination of technical skills and creative problem-solving abilities.

EDUCATION

Doctoral course of Engineering, Kagoshima University   Apr 2024 - now
Intelligent Informatics Course, Advised by Professor Takayasu Fuchida & Assistant professor Kentaro Oda

Master of Engineering, Kagoshima University   Apr 2022 - Mar 2024
Intelligent Informatics Course, Advised by Professor Takayasu Fuchida & Assistant professor Kentaro Oda (GPA 3.75/4.0)

Bachelor of Engineering, Kagoshima University   Apr 2018 - Mar 2022
Mori Laboratory, Advised by Professor Kunihiko Mori (GPA 3.2/4.0)

TECHNICAL SKILLS

Language: Python, C, C#, Javascript(Nuxt.js), TypeScript, Ruby, Fortrun,Shell
OS:Mac, Linux, Windows,
Cloud: GCP, Azure, Sakura's VPS
Hardware: Digital fabrication tools(3D printer, laser cutter, CNC), electrical circuit by KiCad

WORK EXPERIENCE

Unimal Inc. Intern(Backend & Frontend)   Jul 2023 - now
I am responsible for adding new API functions in our CMS product, designing the DB and adding new functions such as sorting functions on the front screen.
Meta Systems Laboratory Inc. Research Assistant   Jan 2021 - now
I am responsible for preparing project proposals and building data on satellite and oceanographic data.

Aisin Corporation Intern   Mar 2021 - July 2021
Security analysis with regard to the ECUs of future vehicles.
Sazan wish, inc. Intern   Mar 2021 - July 2021
I have created a cattle growth data collection application.
Fujitsu inc. Data Science Intern   Mar 2021
Teams worked together to create a migration proposal application using open data.

PUBLICATIONS

1. ***Hiroki Kawahara**, Kentaro Oda, Tamotsu Furuya, Toyohiko Satou, Kunihiko Mori Reproduction Of Omnidirectional Stereoscopic Images Using Parabolic Mirror Pairs The 74th Joint Conference of Electrical, Electronics and Information Engineers in Kyushu, 2021. p. 352-352. honorable mention (6%: 5 out of 80)

2. Kaito Yamao, ***Hiroki Kawahara**, Kentaro OdaA System for Providing Virtual Reality Experience of Remote Ship Control The 75th Joint Conference of Electrical, Electronics and Information Engineers in Kyushu, 2022. p. 141. honorable mention (6%: 5 out of 80)

3. ***Hiroki Kawahara**, Kaito Yamao, Kentaro Oda,Magic Drops: Food 3D Printing of Colored Liquid Balls by Ultrasound Levitation. In: Adjunct Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology. 2022. p. 1-2.(Student Innovation Contest 10 out of 21)

4. ***Hiroki Kawahara**, Kaito Yamao, Takayasu Fuchida, and Kentaro Oda, "Flavor Fusions: entertainment cooking device using ultrasound to levitate and discharge liquids to change color and flavor impressions.",Smell, Taste, and Temperature Interfaces Workshop at CHI 2023.

5. ***Hiroki Kawahara**, Kaito Yamao, Takayasu Fuchida and Kentaro Oda. Levitation Printing: Feasibility Study of a New Food Printing Method with Ultrasound Levitation. In ICCCM'24: The 12th International Conference on Computer and Communications Management. Accepted for publication; preprint available.

6. Kaito Yamao, ***Hiroki Kawahara**, Masayuki Kashima, Takayasu Fuchida, Kentaro Oda. "Remote Ship Control through Head Mounted Display (HMD) Based User Experience". Proceedings of the 2024 12th International Conference on Computer and Communications Management

7. ***Hiroki Kawahara**, Kaito Yamao, Akio Tsuchimoto, Kentaro Oda, Takayasu Fuchida. "Levitation Printing: Feasibility Study of a New Food Printing Method with Ultrasound Levitation". Entertainment Computing 2024

8. Kaito Yamao, ***Hiroki Kawahara**, Masayuki Kashima, Takayasu Fuchida, Kentaro Oda. "On-water and Underwater Ship Control User Experience Through Head Mounted Display (HMD) and Its Evaluation". Entertainment Computing 2024

AWARDS

- Grand Prize in the Spirit of Initiative Challenge Program(2022)
- Excellence Award for Graduation Thesis Presentation, Academic Year 2021
- Grand Prize in the Idea Category at the 2nd Kagoshima ICTel Awards 2021 (AED in Kagoshima)
- Idea Award at the Kyushu Summer Robocon
- Excellence Award in the Spirit of Initiative Challenge Program (2018, 2019, 2021)

VOLUNTEER

- Contest Judges member in Kagoshima kids Programming Contest 2024
- Executive Committee(program committee) in SAKURAJIMA HOUSE 2024
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- Tutor in Security mini camp in Yamanashi 2023
- Executive Committee(Web Frontend Engineer) in SAKURAJIMA HOUSE 2022
- Commiter in the Code for Kagoshima Covid-19 Kagoshima Site
- Tutor in Security mini camp in Yamanashi 2022
- SIGGRAPH ASIA 2021 TOKYO Student Volunteer

OTHER EXPERIENCE

- Completed Track D at Security Camp National Conference 2020 Online
- Completed Security Next Camp National Conference 2021 Online
- Presenter at the 2nd Kyushu Cybersecurity Symposium
- Exhibited at Maker Faire Kyoto 2023 (Physical Visualization Map of Cyber Attacks, Satsuma Lab)

- Exhibited at Maker Faire Tokyo 2023 (Granular Food Printing Project, Satsuma Lab)
- Problem setter for Tsuku CTF 2023
- Participated in CoRE:1 (The Championship of Robotics Engineers), Team Satsuma