JUN NISHIDA

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Profile

I'm a postdoctoral fellow at University of Chicago. I received my Ph.D. degree in Human Informatics at University of Tsukuba, Japan in 2019. I have received more than 45 awards including ACM UIST Best Paper Award, ACM CHI Best Paper Honorable Mention Award, Forbes 30 Under 30, and outstanding postdoc award at University of Chicago. I had internship opportunities including Microsoft Research Asia in Beijing and Sony Computer Science Laboratories in Tokyo.

Research Goal

My research goal is to change our perspectives by changing our bodies for supporting mutual understanding in the fields of rehabilitation, education, and design. To achieve this, I implement wearable devices that can communicate our embodied and social experiences among people. I also investigate how our perception, action, and interaction can be changed when our perspectives and bodies have modified through psychophysics studies and field studies.

Education & Employment

Present	Postdoctoral Fellow: University of Chicago	Chicago, Illinois
2019	Ph.D. in Human Informatics: University of Tsukuba	Tsukuba, Japan
2014	Bachelor in Engineering: University of Tsukuba	Tsukuba, Japan

Conference Awards

1) Best Paper Award, ACM UIST 2020
2) Best Paper Honorable Mention Award, ACM CHI 2019
3) Best Journal Award, Trans. of Virtual Reality Society of Japan (2019)
4) Outstanding PhD Thesis Award, Information Processing Soc. of Japan (2019)
5) Laval Virtual Grand Prize, ACM SIGGRAPH 2019
6) Best Journal Award, Trans. of Virtual Reality Society of Japan (2018)
7) Honorable Mention Award for Student Innovation Contest, ACM UIST 2016
8) Honorable Mention Award for Best Research Demo, IEEE Virtual Reality 2016
9) Best Presentation Award, IPSJ Interaction 2016

Selected Publications

1) **HandMorph: a Passive Exoskeleton that Miniaturizes Grasp**

   ACM UIST 2020 Papers (acceptance rate: ~22%) | Best Paper Award (Top 1%)

   Jun Nishida, Soichiro Matsuda, Hiroshi Matsui, Shan-Yuan Teng, Zoe Liu, Kenji Suzuki and Pedro Lopes

2) Egocentric Smaller-person Experience by Changing a Visual Perspective

ACM CHI 2019 Papers (acceptance rate: ~25%) | Best Paper Honorable Mention Award (Top 5%)

Jun Nishida, Soichiro Matsuda, Mika Oki, Hikaru Takatori, Kosuke Sato and Kenji Suzuki

3) bioSync: A Paired Wearable Device for Blending Kinesthetic Experience

ACM CHI 2017 Papers (acceptance rate: ~25%) & Interactivity

Jun Nishida and Kenji Suzuki

4) HYPERSPECTIVE: Shaping Experiences beyond Perspectives

IEEE VR 2019 Workshop

Jun Nishida and Kenji Suzuki

5) Preemptive Action: Accelerating Human Reaction using Electrical Muscle Stimulation Without Compromising Agency

ACM CHI 2019 Papers (acceptance rate: ~25%)

Shunichi Kasahara, **Jun Nishida**, and Pedro Lopes

Publications & Presentations

1) Preserving Agency During Electrical Muscle Stimulation Training Speeds up Reaction Time Directly After Removing EMS

ACM CHI 2021 Papers (acceptance rate: ~25%)

Shunichi Kasahara, Kazuma Takada, **Jun Nishida**, Kazuhisa Shibata, Shinsuke Shimojo, Pedro Lopes

2) Stereo-Smell via Electrical Trigeminal Stimulation

ACM CHI 2021 Papers (acceptance rate: ~25%)

Jas Brooks, Shan-Yuan Teng, Jingxuan Wen, Romain Nith, **Jun Nishida**, Pedro Lopes

3) Successful Outcomes in a Stroop Test Modulate the Sense of Agency When the Human Response and the Preemptive Response Actuated by Electrical Muscle Stimulation are Aligned

Journal of Vision 2020. 20(11):173.

Daisuke Tajima, **Jun Nishida**, Pedro Lopes, and Shunichi Kasahara

4) Next Steps in Human-Computer Integration

ACM CHI 2020 Papers (acceptance rate: ~25%)

Florian 'Floyd' Mueller, Pedro Lopes, Paul Strohmeier, Wendy Ju, Caitlyn Seim, Martin Weigel, Suranga Nanayakkara, Marianna Obrist, Zhuying Li, Joseph Delfa, **Jun Nishida**, Elizabeth M. Gerber, Dag Svanaes, Jonathan Grudin, Stefan Greuter, Kai Kunze, Thomas Erickson, Steven Greenspan, Masahiko Inami, Joe Marshall, Harald Reiterer, Katrin Wolf, Jochen Meyer, Thecla Schiphorst, Dakuo Wang, and Pattie Maes

5) Wearable Kinesthetic I/O Device for Sharing Wrist Joint Stiffness

IEEE EMBC 2019 Full Papers

Jun Nishida, Keisuke Yagi, Modar Hassan and Kenji Suzuki

🏆 6) **Perceptual and Kinetic Characteristics by Egocentric Child Experience**

Transaction on Virtual Reality Society of Japan, Vol.23(3), 2018 | Best Journal Award

Jun Nishida, Soichiro Matsuda, Mika Oki, Hikaru Takatori, Kosuke Sato and Kenji Suzuki

7) **bioSync: Wearable Kinesthetic I/O Device for Blending Kinesthetic Experience**

Transactions of the Virtual Reality Society of Japan, Vol.22(1), 2017

Jun Nishida and Kenji Suzuki

🏆 8) **CHILDHOOD: Wearable Suit for Augmented Child Experience**

Transactions of the Virtual Reality Society of Japan, Vol.22(1), 2017 | Best Journal Award

Kosuke Sato, **Jun Nishida**, Hikaru Takatori, Kenji Suzuki

9) **CHILDHOOD: Wearable Suit for Augmented Child Experience**

Virtual Reality International Conference 2015

Jun Nishida, Hikaru Takatori, Kosuke Sato and Kenji Suzuki

10) **Haptic Augmentation of Surgical Operation using a Passive Hand Exoskeleton**

Springer Lecture Notes in Electrical Engineering, vol.277, 2015

Jun Nishida, Kei Nakai, Akira Matsushita, and Kenji Suzuki

Posters, Demos, and Workshops

11) **Do Cyborgs dream of Electric Limbs?**

ACM CHI 2021 Symposia

Valdemar Danry, Pat Pataranutaporn, Adam Haar Horowitz, Paul Strohmeier, Josh Andres, Takuto Nakamura, **Jun Nishida**, Pedro Lopes, Andrea Stevenson Won, Dag Svanæs, Florian 'Floyd' Mueller, Pattie Maes, Sang-Won Leigh

12) **HandMorph: a Passive Exoskeleton that Miniaturizes Grasp**

IEEE/ASME AIM 2020 Workshop on Supernumerary Robotic Devices

Jun Nishida, Soichiro Matsuda, Hiroshi Matsui, Shan-Yuan Teng, Zoe Liu, Kenji Suzuki and Pedro Lopes

13) **Sharing Embodied Experiences using Wearable Devices**

Society for Neuroscience 5th Annual Satellite Event: Orofacial Functions: From Neural Mechanisms to Rehabilitation

Jun Nishida and Pedro Lopes

🏅 14) **Demonstrating Preemptive Reaction: Accelerating Human Reaction using Electrical Muscle Stimulation Without Compromising Agency**

ACM SIGGRAPH 2019 Emerging Technologies (acceptance rate: ~25%) | Laval Virtual Grand Prize

Jun Nishida, Shunichi Kasahara, and Pedro Lopes

15) **Wearable Kinesthetic I/O Device for Sharing Muscle Compliance**

ACM UIST 2018 Poster

Jun Nishida and Kenji Suzuki

16) **Wired Muscle: Generating Faster Kinesthetic Reaction by Inter-personally Connecting Muscles**

ACM SIGGRAPH 2017 Emerging Technologies (acceptance rate: ~25%)

Jun Nishida*, Shunichi Kasahara*, and Kenji Suzuki

17) **We-Coupling! Designing New Forms of Embodied Interpersonal Connection**

ACM TEI 2017 Studio

Robb Mitchell, **Jun Nishida**, Enrique Encinas and Shunichi Kasahara

18) **bioSync: Synchronous Kinesthetic Experience among People**

ACM SIGCHI 2016 Interactivity

Jun Nishida and Kenji Suzuki

19) **bioSync: Wearable Haptic I/O Device for Synchronous Kinesthetic Interaction**

IEEE VR 2016 Research Demos & Poster | Best Demo Honorable Mention

Jun Nishida and Kenji Suzuki

20) **Innovation in the age of virtual reality through organizing international student competition**

ACM SIGGRAPH ASIA 2015 Symposium

Akihiko Shirai, **Jun Nishida**, Takahiro Sato, Kosuke Sato, Hikaru Takatori and Susumu Tachi

21) **CHILDHOOD: Wearable Suit for Augmented Child Experience**

ACM SIGGRAPH 2015 Emerging Technologies (acceptance rate: ~25%) & Posters

Jun Nishida, Hikaru Takatori, Kosuke Sato and Kenji Suzuki

22) **A Wearable Stimulation Device for Sharing and Augmenting Kinesthetic Feedback**

Augmented Human 2015 Demo

Jun Nishida, Kanako Takahashi and Kenji Suzuki

Grants & Fellowships

1) Suzuki Postdoctoral Fellowship Award | $10k

selected as an outstanding postdoc across all physical science departments

University of Chicago (2020)

2) Postdoc Fellowship Award | $120k

Japan Society for the Promotion of Science (2019-2021)

3) Research Grant Award | $10k

Ministry of Internal Affairs and Communications of Japan (2017)

4) PhD Fellowship Award | $10k

Microsoft Research Asia (2016)

5) PhD Fellowship & Grant Award | $100k

Japan Society for the Promotion of Science (2016-2019)

6) MS. Scholarship Award | $40k

Ministry of Education, Science and Technology of Japan (2014-2016)

7) BS. Scholarship Award | $24k
Agilent Technologies, Inc. (2010-2014)

Other Awards

1) Laval Virtual Award, Laval Virtual 2020
2) Forbes 30 Under 30, Forbes Japan (2018)
3) Innovative Technologies Selection, Digital Content Assoc. of Japan (2018)
4) University President Award, University of Tsukuba (2017)
5) Special Recognitions for Reviewing, ACM CHI 2018 Papers (2017)
6) Grand Prize, Hardware Startup Competition GUGEN 2016
7) Excellent Award, Art & Technology Tohoku 2016
8) Kids Design Award, KIDS DESIGN AWARD 2016
9) Best Entrepreneur Award, Microsoft Innovation Award 2016
10) Japan Airline Entrepreneur Award, Microsoft Innovation Award 2016
11) Laval Virtual Award, Larval Virtual 2016
12) Special Award, KIDS DESIGN AWARD 2015
13) Kids Design Award, KIDS DESIGN AWARD 2015
14) University President Award, University of Tsukuba (2015)
15) Best Category Award, Microsoft Imagine Cup Japan 2015
16) Laval Virtual Award, Larval Virtual 2015
17) 1st Place, International Virtual Reality Contest 2014
18) Laval Virtual Award, International Virtual Reality Contest 2014
19) Christie Digital Systems Award, International Virtual Reality Contest 2014
20) Gold Award, Japan Research Festa 2012
21) First Award in Informatics, Japan Science Inter-college 2012
22) TOSHIBA Award, Japan Science Inter-college 2012
23) University President Award, University of Tsukuba (2010)
24) Commendation, Minister of Education, Science and Technology of Japan
25) Best Programmer Award, Millennium Youth Camp in Finland 2010
26) Second Award of American Intellectual Property Law Association
Intel International Science & Engineering Fair 2010
27) Third Award of Engineering/Bioengineering and Materials
Intel International Science & Engineering Fair 2010
28) Minister of State for Special Missions(Science & Technology) Award
Japan Science & Engineering Challenge 2009
29) Agilent Technologies Special Award
Japan Science & Engineering Challenge 2008
30) Japan Science & Technology Agency Award
Japan Science & Engineering Challenge 2008
31) JFE Steel Award, Japan Science & Engineering Challenge 2007
32) Minister of State for Special Missions(Science & Technology) Award
Japan Student Science Award 2007

33) Minister of Education, Science and Technology Award
National Super Science High School Conference 2007
34) First Award, Japan Physics Society for High School Students 2007

Academic Services
Organizing Chair
1) ACM UIST 2021 Demo Co-Chair
2) Augmented Humans 2021 Paper Co-Chair
3) IEEE World Haptics 2021 Co-Chair of the Student Innovation Challenge

Program Committee
4) ACM IUI 2021 Program Committee
5) IEEE VR 2021 Program Committee
6) ACM UIST 2020 Program Committee, Associate Chair, Session Chair
7) ACM CHI 2020 Program Committee, Subcommittee Associate Chair
8) Augmented Human 2019, 2020 Program Committee

Reviews

ACM CHI 2021 Papers | ACM TEI 2021 Paper | IEEE TVCG 2020, 2021 | ACM SAP 2020 Papers | ACM
SIGGRAPH Asia 2020 XR | IEEE VR 2019 Journal Papers | ACM IMWUT 2019 | IPSJ Journal | ACM
CHI 2019 Papers, Late Breaking Work, Workshop, Session Chair | ACM/IEEE HRI 2019 Papers | IEEE
VR 2019 Papers, Journal Papers | ACM SIGGRAPH Asia 2019 Emerging Technologies | ACM TEI 2019
Papers, Works in Progress | ACM CHI 2018 Papers | IEEE VR 2018 Papers | ACM UIST 2018 Papers

Research Experience

Postdoctoral Fellow | **University of Chicago**

2019 – Present | Chicago, Illinois
human computer integration lab lead by assistant professor pedro lopes

Research Fellow | **Japan Society for the Promotion of Science**

2019 - 2021 | Chicago, Illinois
received overseas fellowship from japanese government organization

Research Assistant | **Sony Computer Science Laboratories**

2019 | Tokyo, Japan
conducted research on perception engineering with dr. shunichi kasahara

Project Researcher | **Ministry of Internal Affairs and Communications Japan**

2017 - 2018 | Tokyo, Japan
strategic information and communications R&D promotion programme (SCOPE)

PhD Fellow | **Microsoft Research Asia**

2017 - 2018 | Beijing, China
received research grant and mentorship program (MSRA phd fellowship award 2016)

Research Fellow | **Japan Society for the Promotion of Science**

2016 - 2019 | Tokyo, Japan
received fellowship and grant from japanese government organization

Short-term Intern | SEGA

2011 | Tokyo, Japan
participated interaction design of an embodied entertainment system

Skills

Interaction Design, Analog/Digital Circuit Design, Mechanical Design, Biomedical Engineering, Medical Application, Psychophysics Study

Student Advising

1) Pengyu Li | Master Student | 2021-
   mechanical design

2) Zoe Liu | Predoctoral Master Student | 2019-2020
   co-author of ACM UIST paper (Best Paper Award)

3) Arash Amlesh | Research Assistant | 2019-2020
   hardware/software development, conducting psychological study

Teaching

1) Emergent Interface Technologies 2021 Winter
   held a talk as a guest lecturer on embodiment and sharing perspectives
   University of Chicago, Illinois | Grad, CMSC 23240/3240

2) Emergent Interface Technologies 2020 Winter
   held a talk as a guest lecturer on embodiment and sharing perspectives
   University of Chicago, Illinois | Grad, CMSC 23240/3240

3) Inventing, Engineering and Understanding Interactive Devices 2019 Spring
   designed and prepared electrical and mechanical components for students' projects
   University of Chicago, Illinois | Ugrad, CMSC 23220

4) Grant Writing 2016 Winter & 2017 Winter
   supported grad students' fellowship submissions and interview practice
   University of Tsukuba, Japan | Grad

5) Contents Engineering 2014 Autumn
   assisting hardware/software implementation for students' projects, and held a lecture on interaction design and hardware design
   University of Tsukuba, Japan | Ugrad

Invited Talks & Exhibitions

1) Laval Virtual ReVolution. France. April. 22-26, 2020
2) CNBC EVOLVE CHICAGO. Chicago, USA. Sept. 24, 2019
3) Digital Contents Expo. Tokyo, Japan. Nov. 14-16, 2019

4) Open Innovation 2018

Ministry of Internal Affairs and Communication of Japan. Tokyo, Japan. Oct. 24, 2018

5) Sony CSL Open House 2018. Tokyo, Japan. Oct. 23-24, 2018

6) German Research Center for Artificial Intelligence (DFKI). Germany. 2018

7) Dagstuhl Seminar 18322 "Human-Computer Integration". Germany. 2018

8) Visual Plaza Museum. Saitama, Japan. Sept. 16, 2017-Mar. 11, 2018.

9) Annual Conference of Japan Psychology Association

Fukuoka, Japan. Sept. 22, 2017.

10) ARS ELECTRONICA. Linz, Austria, Sept.6-10, 2017.

11) 79th Annual Conference of Information Processing Society of Japan

Nagoya, Japan. Mar. 17, 2017.

12) Tsukuba Medical Engineering Forum 2017. Tsukuba, Japan, Jan. 20, 2017.

13) National Institute of Advanced Industrial Science and Technology (AIST).

Tokyo, Japan. Dec. 7, 2015.

14) Microsoft de:code 2016. Tokyo, Japan, May 24–25, 2016.

15) SPECULUM ARTIUM. Slovenia. Oct. 15-17, 2015

16) Laval Virtual ReVolution. France. Apr. 8-12, 2015

Thesis

Shaping Egocentric Experiences with Wearable Cybernic Interfaces

Ph.D. in Human Informatics

Supervisors: Kenji Suzuki, Yoshiyuki Sankai, Yoshinari Kameda, Hideo Tsurushima , Yanaga Masao. Mar. 2019.

Neurosurgery Assistive Devices for Augmenting Surgical Field Perception and Physical Operation

Bachelor of Engineering

Supervisor: Kenji Suzuki. Mar. 2014.

Media Coverage

1) [TV] Current Time, Voice of America Russia, Jan. 2021

2) [Newspaper] Asahi Shimbun, Sept. 2020

3) [TV] Aitsu ima nani shiteru?, TV Asahi, Nov. 2019

4) [Web] UChicago Magazine, Aug. 2019

5) [Web] Gizmode US, July. 2019

6) [Web] Gizmode Japan, July. 2019

7) [Web] IEEE Spectrum, July. 2019

8) [TV] TBS News, June. 2019

9) [Web] P-ban.com, June. 2019

10) [TV] Heureka!, NHK Television, Sept. 2018

11) [TV] Next Creators, NTV Nippon Television, Feb. 2019

12) [Magazine] Forbes Japan, ATOMIXMEDIA Inc., Aug 2018

13) [Web] Forbes Japan, ATOMIXMEDIA Inc., Aug 2018

14) [Magazine] Weekly ASCII, Kadokawa, June 2018

15) [Web] TV Tokyo Plus, Dec. 2017

16) [Book] "A to Z: National Univ. Secondary Schools", Tohotsushinsha, Oct 2017

17) [Newspaper] Asahi Shimbun, July 2017

18) [Web] Co.Design, June 2017

19) [TV] Fuji TV Yume no Buramayo Kenkyuzyo, May 2017

20) [Web] RBB Today IT/Digital, Mar 2017

21) [TV] TV Tokyo World Business Satellite, Jan 2017

22) [Magazine] TSUKUCOMM by University of Tsukuba, vol.32, July 2016

23) [Magazine] Weekly Playboy, July 2016

24) [Magazine] IEEE Spectrum, May 2016

25) [TV] RTV, Slovenia, RTV SLO, October 2015

26) [Magazine] CGWORLD, September 2015

27) [TV] NEWS ZERO, Nippon Television Network, June 2015

28) [TV] Mezamashi TV, Fuji Television, May 2015

29) [TV] M6, France, Métropole Télévision, April 2015

30) [TV] NEXT WORLD, NHK Special, NHK Television, January 2015

31) [TV] SENSORS, Nippon Television Network, October 2014

32) [Web] mynavi News, 2010

33) [TV] BS Asahi News Bird, BS Asahi, 2010

34) [TV] ABC News USA, May 2010

35) [Newspaper] Asahi Shimbun, July 2008

36) [Newspaper] Yomiuri Shimbun, Dec 2008

37) [Newspaper] Sankei Shimbun, Aug 2008

38) [Newspaper] Sankei Shimbun, Jan 2008

39) [Newspaper] JST News, Oct 2007

40) [Newspaper] nature digest, Oct 2007

41) [Newspaper] Sankei Shimbun, March 2007

42) [Newspaper] Sankei Shimbun, July 2007