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# 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, and Forbes 30 Under 30. 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 share 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 | **Best Paper Award (Top 1%)**  
Jun Nishida, S. Matsuda, H. Matsui, SY. Teng, Z. Liu, Kenji Suzuki and Pedro Lopes
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- 2) **Egocentric Smaller-person Experience by Changing a Visual Perspective**  
ACM CHI 2019 Papers | **Best Paper Honorable Mention Award (Top 5%)**  
**Jun Nishida**, Soichiro Matsuda, Mika Oki, H. Takatori, K. Sato and Kenji Suzuki
  - 3) **bioSync: A Paired Wearable Device for Blending Kinesthetic Experience**  
ACM CHI 2017 Papers (acceptance rate: ~25%)  
**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

#### Other Publications & Presentations

- 1) **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, Pattie Maes
  - 2) **Wearable Kinesthetic I/O Device for Sharing Wrist Joint Stiffness**  
IEEE EMBC 2019 Papers  
**Jun Nishida**, Keisuke Yagi, Modar Hassan and Kenji Suzuki
  - 3) **Demonstrating Preemptive Reaction: Accelerating Human Reaction using Electrical Muscle Stimulation Without Compromising Agency**  
ACM SIGGRAPH 2019 Emerging Technologies (acceptance rate: ~25%)  
**Jun Nishida**, Shunichi Kasahara, and Pedro Lopes | **Laval Virtual Grand Prize**
  - 4) **Wearable Kinesthetic I/O Device for Sharing Muscle Compliance**  
ACM UIST 2018 Poster  
**Jun Nishida** and Kenji Suzuki
  - 5) **Perceptual and Kinetic Characteristics by Egocentric Child Experience**  
Transaction on Virtual Reality Society of Japan, Vol.23(3), 2018  
**Jun Nishida**, Soichiro Matsuda, Mika Oki, Hikaru Takatori, Kosuke Sato and Kenji Suzuki  
**Best Journal Award**
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- 6) **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
  - 7) **bioSync: A Paired Wearable Device for Blending Kinesthetic Experience**  
ACM SIGCHI 2017 Interactivity  
**Jun Nishida** and Kenji Suzuki
  - 8) **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
  - 9) **CHILDHOOD: Wearable Suit for Augmented Child Experience**  
Transactions of the Virtual Reality Society of Japan, Vol.22(1), 2017  
Kosuke Sato, **Jun Nishida**, Hikaru Takatori, Kenji Suzuki | **Best Journal Award**
  - 10) **We-Coupling! Designing New Forms of Embodied Interpersonal Connection**  
ACM TEI 2017 Studio  
Robb Mitchell, **Jun Nishida**, Enrique Encinas and Shunichi Kasahara
  - 11) **bioSync: Synchronous Kinesthetic Experience among People**  
ACM SIGCHI 2016 Interactivity  
**Jun Nishida** and Kenji Suzuki
  - 12) **bioSync: Wearable Haptic I/O Device for Synchronous Kinesthetic Interaction**  
IEEE VR 2016 Research Demos & Poster  
**Jun Nishida** and Kenji Suzuki | **Best Demo Honorable Mention**
  - 13) **Innovation in the age of virtual reality through organizing international student competition**  
ACM SIGGRAPH ASIA 2015 Symposium  
Akihiko Shirai, **Jun Nishida**, T. Sato, K. Sato, H. Takatori and Susumu Tachi
  - 14) **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
  - 15) **CHILDHOOD: Wearable Suit for Augmented Child Experience**  
Virtual Reality International Conference 2015  
**Jun Nishida**, Hikaru Takatori, Kosuke Sato and Kenji Suzuki
  - 16) **A Wearable Stimulation Device for Sharing and Augmenting Kinesthetic Feedback**  
Augmented Human 2015 Demo  
**Jun Nishida**, Kanako Takahashi and Kenji Suzuki
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**17) 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

**Grants & Fellowships**

- 1) Postdoc Fellowship Award | \$120k  
Japan Society for the Promotion of Science (2019-2021)
- 2) Research Grant Award | \$10k  
Ministry of Internal Affairs and Communications of Japan (2017)
- 3) PhD Fellowship Award | \$10k  
Microsoft Research Asia (2016)
- 4) PhD Fellowship & Grant Award | \$100k  
Japan Society for the Promotion of Science (2016-2019)
- 5) MS. Scholarship Award | \$40k  
Ministry of Education, Science and Technology of Japan (2014-2016)
- 6) BS. Scholarship Award | \$24k  
Agilent Technologies, Inc. (2010-2014)

**Other Awards**

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

### Academic Services

#### Chair/PC

- 1) Augmented Humans 2021 Program Co-Chair
- 2) IEEE World Haptics 2021 Co-Chair of the Student Innovation Challenge
- 3) ACM IUI 2021 Program Committee
- 4) IEEE VR 2021 Program Committee
- 5) ACM UIST 2020 Associate Chair, Session Chair
- 6) ACM CHI 2020 Subcommittee Associate Chair
- 7) Augmented Human 2019, 2020 Program Committee

#### Reviews

ACM CHI 2021 Papers | ACM TEI 2021 Paper | IEEE TVCG 2020 | 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

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## Thesis

### Shaping Egocentric Experiences with Wearable Cybernic Interfaces

Degree | 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

Degree | Bachelor of Engineering

Supervisor: Kenji Suzuki. Mar. 2014.

## Research Experience

2019 - Present | Chicago, Illinois

### Postdoctoral Fellow | University of Chicago

human computer integration lab lead by assistant professor pedro lopes

2019 - 2021 | Chicago, Illinois

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

received overseas fellowship from japanese government organization

2019 | Tokyo, Japan

### Research Assistant | Sony Computer Science Laboratories

conducted research on perception engineering with dr. shunichi kasahara

2017 - 2018 | Tokyo, Japan

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

strategic information and communications R&D promotion programme (SCOPE)

2017 - 2018 | Beijing, China

### PhD Fellow | Microsoft Research Asia

received research grant and mentorship program (MSRA fellowship award 2016)

2016 - 2019 | Tokyo, Japan

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

received fellowship and grant from japanese government organization

2011 | Tokyo, Japan

### Short-term Intern | SEGA

participated interaction design of an embodied entertainment system

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## Skills

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

## Student Advising

- 1) Zoe Liu | Predoctoral Master Student | 2019-2020  
co-author of ACM UIST paper (Best Paper Award)
- 2) Arash Amlesh | Research Assistant | 2019-2020  
hardware/software development, conducting psychological study

## Teaching Assistant

- 1) Inventing, Engineering and Understanding Interactive Devices 2019 Spring  
prepared electrical and mechanical components used for students' projects  
University of Chicago, Illinois | Ugrad, CMSC 23220
- 2) Grant Writing 2016 Winter & 2017 Winter  
supported grad student's fellowship submission and interview practice  
University of Tsukuba, Japan
- 3) Contents Engineering 2014 Autumn  
supported hardware/software implementation for students' projects, and lecture on interaction design and hardware design  
University of Tsukuba, Japan

## Invited Talks & Exhibitions

- 1) Laval Virtual ReVolution. France. April. 22-26, 2020 (cancelled)
  - 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.
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- 15) SPECULUM ARTIUM. Slovenia. Oct. 15-17, 2015
  - 16) Laval Virtual ReVolution. France. Apr. 8-12, 2015

### Media Coverage

- 1) [Newspaper] Asahi Shimbun, Sept. 2020
  - 2) [TV] Aitsu ima nani shiteru?, TV Asahi, Nov. 2019
  - 3) [Web] UChicago Magazine, Aug. 2019
  - 4) [Web] Gizmode US, July. 2019
  - 5) [Web] Gizmode Japan, July. 2019
  - 6) [Web] IEEE Spectrum, July. 2019
  - 7) [TV] TBS News, June. 2019
  - 8) [Web] P-ban.com, June. 2019
  - 9) [TV] Heureka !, NHK Television, Sept. 2018
  - 10) [TV] Next Creators, NTV Nippon Television, Feb. 2019
  - 11) [Magazine] Forbes Japan, ATOMIXMEDIA Inc., Aug 2018
  - 12) [Web] Forbes Japan, ATOMIXMEDIA Inc., Aug 2018
  - 13) [Magazine] Weekly ASCII, Kadokawa, June 2018
  - 14) [Web] TV Tokyo Plus, Dec. 2017
  - 15) [Book] "A to Z: National Univ. Secondary Schools", Tohotsushinsha, Oct 2017
  - 16) [Newspaper] Asahi Shimbun, July 2017
  - 17) [Web] Co.Design, June 2017
  - 18) [TV] Fuji TV Yume no Buramayo Kenkyuzyo, May 2017
  - 19) [Web] RBB Today IT/Digital, Mar 2017
  - 20) [TV] TV Tokyo World Business Satellite, Jan 2017
  - 21) [Magazine] TSUKUCOMM by University of Tsukuba, vol.32, July 2016
  - 22) [Magazine] Weekly Playboy, July 2016
  - 23) [Magazine] IEEE Spectrum, May 2016
  - 24) [TV] RTV, Slovenia, RTV SLO, October 2015
  - 25) [Magazine] CGWORLD, September 2015
  - 26) [TV] NEWS ZERO, Nippon Television Network, June 2015
  - 27) [TV] Mezamashi TV, Fuji Television, May 2015
  - 28) [TV] M6, France, Métropole Télévision, April 2015
  - 29) [TV] NEXT WORLD, NHK Special, NHK Television, January 2015
  - 30) [TV] SENSORS, Nippon Television Network, October 2014
  - 31) [Web] mynavi News, 2010
  - 32) [TV] BS Asahi News Bird, BS Asahi, 2010
  - 33) [TV] ABC News USA, May 2010
  - 34) [Newspaper] Asahi Shimbun, July 2008
  - 35) [Newspaper] Yomiuri Shimbun, Dec 2008
  - 36) [Newspaper] Sankei Shimbun, Aug 2008
  - 37) [Newspaper] Sankei Shimbun, Jan 2008
  - 38) [Newspaper] JST News, Oct 2007
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- 39) [Newspaper] nature digest, Oct 2007
  - 40) [Newspaper] Sankei Shimbun, March 2007
  - 41) [Newspaper] Sankei Shimbun, July 2007