

LICHAO SHEN

PhD Student

Shared Reality Lab
Department of Electrical and Computer Engineering
MCGILL UNIVERSITY

shenlichao.com
lichao@cim.mcgill.ca

INTERESTS

Human-Computer Interaction
Human Augmentation, User Interface, VR/AR, Haptics, Wearables, Robotics, Interactive Design

EDUCATION

2021
—
present
PhD Student. Electrical and Computer Engineering.
MCGILL UNIVERSITY, MONTRÉAL, CANADA
Advisor: Prof. JEREMY COOPERSTOCK.

2015
—
2018
Master. Media Design. Global Innovation Design.
KEIO UNIVERSITY, TOKYO, JAPAN
Advisor: Prof. KOUTA MINAMIZAWA, Co-advisor: Prof. KAI KUNZE.
Thesis: *Visual Expansion by Animal-Inspired Visuomotor Modification.*
GID 2017, PRATT INSTITUTE, BROOKLYN.
GID 2016, ROYAL COLLEGE OF ART, LONDON.
GID 2016, IMPERIAL COLLEGE, LONDON.

2010
—
2014
Bachelor. Industrial Design.
BEIHANG UNIVERSITY, BEIJING, CHINA
Outstanding Graduate.

RESEARCH EXPERIENCE

2020
Research Intern. Altered Reality Group.
ROCHESTER INSTITUTE OF TECHNOLOGY, ROCHESTER, US
Director: Prof. ROSHAN PEIRIS.
Finalized the user study of thermal sensation and visuomotor research.

2019
Research Intern. Empathic Computing Lab.
UNIVERSITY OF AUCKLAND, AUCKLAND, NEW ZEALAND

Director: Prof. MARK BILLINGHURST.

Developed extend reality applications of remote access from standalone mobile devices.

Designed and fabricated commercial prototypes for remote collaboration and XR tech.

Researched on new interfaces with AR goggles, machine learning, and brain-computer interface.

Research Intern. Embodied Media Project.

2018 KEIO UNIVERSITY, TOKYO, JAPAN

Director: Prof. KOUTA MINAMIZAWA.

Researched on themes of telexistence, virtual reality, haptic design, and sensory augmentation; Led projects of Unconstrained Neck, Eye-in-Head, and Metamorphosis.

Developed experiments, prototypes and applications with technologies including VR/AR, robotics, EEG, EMG, EMS, eye-tracking, and wearable computing.

PROFESSIONAL EXPERIENCE

Product Manager.

2019 CHINA MOBILE SHANGHAI ICT LTD., SHANGHAI, CHINA

2021

Explored on solutions of information and communication technology in transportation including internet of vehicle (IoV), autonomous driving and vehicle to everything (V2X), and in manufacture including industrial scenarios using AR and remote collaboration.

Managed the product line of electronics and cloud platforms, and engaged in the process of business analysis, design refinement, factory manufacture, and software development.

Designed, developed, and patented new products and applications, to business and to customer.

User Experience Design Intern.

2013 LENOVO RESEARCH, BEIJING, CHINA

2014

Conducted user research towards various types of consumer electronics, including laptop, tablet, phone, and other new forms, at User Research Center.

Developed the preliminary design of the next generation smart devices.

PUBLICATIONS

Conference Publications

2020 **Lichao Shen**, MHD Yamen Saraiji, Kai Kunze, Kouta Minamizawa, and Roshan Lalintha Peiris. 2020. Visuomotor Influence of Attached Robotic Neck Augmentation. In *Symposium on Spatial User Interaction (SUI '20)*. ACM, New York, NY, USA, Article 14, 1–10. DOI:<https://doi.org/10.1145/3385959.3418460>

2018 MHD Yamen Saraiji, Roshan Lalintha Peiris, **Lichao Shen**, Kouta Minamizawa, and Susumu Tachi. 2018. Ambient: Facial Thermal Feedback in Remotely Operated Applications. In *Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems (CHI EA '18)*. ACM, New York, NY, USA, Paper D321, 1–4. DOI:<https://doi.org/10.1145/3170427.3186483>

2018 **Lichao Shen**, MHD Yamen Saraiji, Kai Kunze, and Kouta Minamizawa. 2018. *Unconstrained Neck: Omnidirectional Observation from an Extra Robotic Neck*. In *Proceedings of the 9th Augmented Human International Conference (AH '18)*. ACM, New York, NY, USA, Article 38, 1–2. DOI:<https://doi.org/10.1145/3174910.3174955>
[Best Demo Award]

Patents

- 2020 CN211319386U. Vehicle-Road Cooperation System.
- 2021 CN214507271U. On-Board Laser Projector.

EXHIBITIONS

- 2014 Auto China, 13th Beijing International Automobile Exhibition, *AERO* Racing Car
- 2013 Formula Student China, 8th place out of 53 teams, *AERO* Racing Car
- 2013 *City, Museum, Tokyo* Design Show, *Hahaki* Postcard System

HONORS

Awards

- 2018 Best Demo Award, Augmented Human 9th International Conference
- 2013 Design Excellent Prize, *Gifts of Fuyang* Design Competition
- 2013 Finalist , Red Dot Design Award
- 2011 Second Prize, *Fengru Cup* Student Innovation Competition

Titles

- 2014 Outstanding Graduate
- 2013 Outstanding Student Leader
- 2011 Merit Student

Scholarships

- 2021 McGill Engineering Doctoral Award (MEDA)
- 2013 Scholarship of Academic Performance, 3 years
- 2013 Scholarship of Social Duty
- 2011 Scholarship of Science and Technology Competition

Last updated: April 18, 2022