

Aspiring research student focused on advancing the field of 3D User Interfaces. Leveraging experience in airborne ultrasound for creating tactile surfaces. Skilled in Unity(C#), Python, and VR development, aiming to contribute to systems that integrate seamlessly into daily life without cumbersome devices.

## Awards and Fellowships

2023.04 - 2025.03	<b>Research Fellowship for Young Scientists DC2</b> [Acceptance rate: 18.5 %] Japan Society for the Promotion of Science
2022.05	<b>3rd place in Demo Award, Eurohaptics2022</b> [International] Airborne Bumpy Surfaces Presented by Ultrasound
2021.12	<b>Presentation Award, SICE SI 2021</b> [Domestic] Curved Surface Presentation using Airborne Ultrasound
2020.09 - Current	<b>International Graduate Program of Innovation for Intelligent World</b> [Acceptance rate: 48.1 %] The University of Tokyo

## Selected Publications and Presentations

### Research Article

2021.04	<b>Fabrication of Eutectic Ga-In Nanowire Arrays Based on Plateau-Rayleigh Instability</b> Takashi Ikuno, <u>Zen Somei</u> , MOLECULES, 26(15), 4616.
2025.07	<b>Spatial Resolution of Mesoscopic Pattern via Contact Position Control using Airborne Ultrasound</b> <u>Zen Somei</u> , Tao Morisaki, Shun Suzuki, Yasutoshi Makino, Hiroyuki Shinoda, Transactions on Haptics [Under Review]

### Conference Proceedings (Oral Presentation)

2022.05	<b>Spatial Resolution of Mesoscopic Shapes</b> [Acceptance rate: 57.0 %] <u>Zen Somei</u> , Tao Morisaki, Yutaro Toide, Masahio Fujiwara, Yasutoshi Makino, Hiroyuki Shinoda, Eurohaptics 2022.
---------	---

## Education and Internships

2022.04 - In Progress	<b>Ph.D. in Complexity Science and Engineering</b> The University of Tokyo
2022.10 - 2022.12	<b>Internship at UCL, UK</b> Theme: Impact-based Ultrasound Haptics
2022.10 - 2022.12	<b>Internship at NEC, Japan</b> Theme: Dynamic Prediction
2020.04 - 2022.03	<b>M.S. in Complexity Science and Engineering</b> The University of Tokyo
2016.04 - 2020.03	<b>B.S. in Applied Electronics</b> Tokyo University of Science

## Contact

### E-mail

[somei@hapis.k.u-tokyo.ac.jp](mailto:somei@hapis.k.u-tokyo.ac.jp)

### LinkedIn

[www.linkedin.com/in/zen-somei](https://www.linkedin.com/in/zen-somei)

## Skills

C, C++, C#, Unity, Python, VR Development, Hand Sensing, HCI, Ultrasound Manipulation.

## Languages

Japanese, English, Chinese.

## Interests

Haptics, VR, AR, Metaverse, Engineering, HCI, Ultrasound Technology, 3D User Interfaces.

Aspiring research student focused on advancing the field of 3D User Interfaces. Leveraging experience in airborne ultrasound for creating tactile surfaces. Skilled in Unity(C#), Python, and VR development, aiming to contribute to systems that integrate seamlessly into daily life without cumbersome devices.

## Awards and Fellowships

- |                      |  |
|----------------------|--|
| 2023.04 -<br>Current | <b>Research Fellowship for Young Scientists DC2</b><br>[Acceptance rate: 18.5 %]<br>Japan Society for the Promotion of Science     |
| 2022.05              | <b>3rd place in Demo Award, Eurohaptics2022</b><br>[International]<br>Airborne Bumpy Surfaces Presented by Ultrasound              |
| 2021.12              | <b>Presentation Award, SICE SI 2021</b> [Domestic]<br>Curved Surface Presentation using Airborne Ultrasound                        |
| 2020.09 -<br>Current | <b>International Graduate Program of Innovation<br/>for Intelligent World</b> [Acceptance rate: 48.1 %]<br>The University of Tokyo |

## Selected Publications and Presentations

### Research Article

- |         |   |
|---------|---|
| 2021.04 | <b>Fabrication of Eutectic Ga-In Nanowire Arrays<br/>Based on Plateau-Rayleigh Instability</b><br>Takashi Ikuno, <u>Zen Somei</u> , MOLECULES, 26(15), 4616.  |
| 2023.11 | <b>Spatial Resolution of Mesoscopic Pattern via<br/>Contact Position Control using Airborne Ultrasound</b><br><u>Zen Somei</u> , Tao Morisaki, Shun Suzuki, Yasutoshi Makino,<br>Hiroyuki Shinoda, Transactions on Haptics [Under Review] |

### Conference Proceedings (Oral Presentation)

- |         |  |
|---------|--|
| 2022.05 | <b>Spatial Resolution of Mesoscopic Shapes</b><br>[Acceptance rate: 57.0 %]<br><u>Zen Somei</u> , Tao Morisaki, Yutaro Toide, Masahio Fujiwara,<br>Yasutoshi Makino, Hiroyuki Shinoda, Eurohaptics 2022. |
|---------|--|

## Education and Internships

- |                          |   |
|--------------------------|---|
| 2022.04 -<br>In Progress | <b>Ph.D. in Complexity Science and Engineering</b><br>The University of Tokyo   |
| 2022.10 -<br>2022.12     | <b>Internship in NEC Corporation</b><br>Theme: Sequential Updating of Prediction Model Using<br>Unscented Kalman Filter |
| 2020.04 -<br>2022.03     | <b>M.S. in Complexity Science and Engineering</b><br>The University of Tokyo  |
| 2016.04 -<br>2020.03     | <b>B.S. in Applied Electronics</b><br>Tokyo University of Science   |



## Contact

### E-mail

[somei@hapis.k.u-tokyo.ac.jp](mailto:somei@hapis.k.u-tokyo.ac.jp)

### LinkedIn

[www.linkedin.com/in/zen-somei](https://www.linkedin.com/in/zen-somei)

## Skills

C, C++, C#, Unity, Python, VR development, hand sensing, HCI, ultrasound manipulation.

## Languages

Japanese, English, Chinese.

## Interests

Haptics, VR, AR, metaverse, engineering, HCI, ultrasound technology, 3D user interfaces.

Aspiring research student focused on advancing the field of 3D User Interfaces. Leveraging experience in airborne ultrasound for creating tactile surfaces. Skilled in Unity(C#), Python, and VR development, aiming to contribute to systems that integrate seamlessly into daily life without cumbersome devices.

## Awards and Fellowships

- 2023. 04 - Current**    **Research Fellowship for Young Scientists DC2** [Acceptance rate: 18.5 %]  
Japan Society for the Promotion of Science
- 2022. 05**    **3rd place in Demo Award, Eurohaptics2022** [International]  
Airborne Bumpy Surfaces Presented by Ultrasound
- 2021. 12**    **Presentation Award, SICE SI 2021** [Domestic]  
Curved Surface Presentation using Airborne Ultrasound
- 2020. 09 - Current**    **International Graduate Program of Innovation for Intelligent World** [Acceptance rate: 48.1 %]  
The University of Tokyo

## Selected Publications and Presentations

### Research Article

- 2021. 04**    **Fabrication of Eutectic Ga-In Nanowire Arrays Based on Plateau-Rayleigh Instability**  
Takashi Ikuno, Zen Somei, MOLECULES, 26(15), 4616.
- 2023. 12**    **Spatial Resolution of Mesoscopic Pattern via Contact Position Control using Airborne Ultrasound**  
Zen Somei, Tao Morisaki, Shun Suzuki, Yasutoshi Makino, Hiroyuki Shinoda, Transactions on Haptics [Under Review]

### Conference Proceedings (Oral Presentation)

- 2022. 05**    **Spatial Resolution of Mesoscopic Shapes** [Acceptance rate: 57.0 %]  
Zen Somei, Tao Morisaki, Yutaro Toide, Masahio Fujiwara, Yasutoshi Makino, Hiroyuki Shinoda, Eurohaptics 2022.

## Education and Internships

- 2022. 04 - In Progress**    **Ph.D. in Complexity Science and Engineering**  
The University of Tokyo
- 2022. 10 - 2022. 12**    **Internship in NEC Corporation**  
Theme: Sequential Updating of Prediction Model Using Unscented Kalman Filter
- 2020. 04 - 2022. 03**    **M.S. in Complexity Science and Engineering**  
The University of Tokyo
- 2016. 04 - 2020. 03**    **B.S. in Applied Electronics**  
Tokyo University of Science



## Contact

### E-mail

[somei@hapis.k.u-tokyo.ac.jp](mailto:somei@hapis.k.u-tokyo.ac.jp)

### LinkedIn

[www.linkedin.com/in/zen-somei](https://www.linkedin.com/in/zen-somei)

## Skills

C, C++, C#, Unity, Python, VR development, hand sensing, HCI, ultrasound manipulation.

## Languages

Japanese, English, Chinese.

## Interests

Haptics, VR, AR, metaverse, engineering, HCI, ultrasound technology, 3D user interfaces.

# Zen Somei

Ph.D. Candidate

Software Engineer Intern dedicated to improving skills through hands-on learning and development work. Proficient in VR development and human computer interaction. Adept at using Unity(C#), Python, and other programming languages to produce clean code. Multiple awards including Best Demo Award 3rd place in Eurohaptics 2022.

## Awards and Fellowships

- |                      |  |
|----------------------|--|
| 2020.09 -<br>Current | <b>International Graduate Program of Innovation for Intelligent World</b> [Acceptance rate: 48.1 %]<br>The University of Tokyo |
| 2021.12              | <b>Presentation Award, SICE SI 2021</b> [Domestic]<br>Curved Surface Presentation in Air by Ultrasound                         |
| 2022.05              | <b>3rd place in Demo Award, Eurohaptics2022</b> [International]<br>Airborne Bumpy Surfaces Presented by Ultrasound             |

## Selected Publications and Presentations

### Research Article

- |         |  |
|---------|--|
| 2021.04 | <b>Fabrication of Eutectic Ga-In Nanowire Arrays Based on Plateau-Rayleigh Instability</b><br>Takashi Ikuno, <u>Zen Somei</u> , MOLECULES, 26(15), 4616. |
|---------|--|

### Conference Proceedings (Oral Presentation)

- |         |  |
|---------|--|
| 2022.05 | <b>Spatial Resolution of Mesoscopic Shapes</b> [Acceptance rate: 57.0 %]<br><u>Zen Somei</u> , Tao Morisaki, Yutaro Toide, Masahio Fujiwara, Yasutoshi Makino, Hiroyuki Shinoda, Eurohaptics 2022. |
|---------|--|

### Demonstration

- |         |  |
|---------|--|
| 2022.05 | <b>Airborne Bumpy Surfaces Presented by Ultrasound</b><br><u>Zen Somei</u> , Tao Morisaki, Yutaro Toide, Masahio Fujiwara, Yasutoshi Makino, Hiroyuki Shinoda, Eurohaptics 2022. |
|---------|--|

## Education

- |                          |   |
|--------------------------|---|
| 2022.04 -<br>In Progress | <b>Ph.D. in Complexity Science and Engineering</b><br>The University of Tokyo |
| 2020.04 -<br>2022.03     | <b>M.S. in Complexity Science and Engineering</b><br>The University of Tokyo  |
| 2016.04 -<br>2020.03     | <b>B.S. in Applied Electronics</b><br>Tokyo University of Science             |

## Contact

### E-mail

[somei@hapis.k.u-tokyo.ac.jp](mailto:somei@hapis.k.u-tokyo.ac.jp)

### LinkedIn

[www.linkedin.com/in/zen-somei](https://www.linkedin.com/in/zen-somei)

## Skills

C, C++, C#, Unity, Python, R,  
VR development,  
hand sensing.

## Languages

Japanese, English, Chinese.

## Interests

haptics, virtual reality, metaverse,  
augmented reality, engineering,  
human computer interaction,  
ultrasound.

# Zen Somei

Ph.D. Candidate

Software Engineer Intern dedicated to improving skills through hands-on learning and development work. Proficient in VR development and human computer interaction. Adept at using Unity(C#), Python, and other programming languages to produce clean code. Multiple awards including Best Demo Award 3rd place in Eurohaptics 2022.

## Selected Publications and Presentations

### Research Article

**2021.04 Fabrication of Eutectic Ga-In Nanowire Arrays Based on Plateau-Rayleigh Instability**

Takashi Ikuno, [Zen Somei](#), MOLECULES, 26(15), 4616.

### Conference Proceedings (Oral Presentations)

**2022.05 Spatial Resolution of Mesoscopic Shapes**  
[International, Acceptance rate: 57.0 %]

[Zen Somei](#), Tao Morisaki, Yutaro Toide, Masahio Fujiwara, Yasutoshi Makino, Hiroyuki Shinoda, Eurohaptics 2022.

**2021.12 Curved Surface Presentation in Air by Ultrasound** [Domestic, Presentation Award]

[Zen Somei](#), Tao Morisaki, Yutaro Toide, Masahio Fujiwara, Yasutoshi Makino, Hiroyuki Shinoda, Online, SICE SI 2021.

### Demonstration

**2022.05 Airborne Bumpy Surfaces Presented by Ultrasound**

[Zen Somei](#), Tao Morisaki, Yutaro Toide, Masahio Fujiwara, Yasutoshi Makino, Hiroyuki Shinoda, Eurohaptics 2022.

## Education

**2022.04 - Ph.D. in Complexity Science and Engineering**  
In Progress The University of Tokyo

**2020.04 - M.S. in Complexity Science and Engineering**  
2022.03 The University of Tokyo

**2016.04 - B.S. in Applied Electronics**  
2020.03 Tokyo University of Science

## Contact

### E-mail

[somei@hapis.k.u-tokyo.ac.jp](mailto:somei@hapis.k.u-tokyo.ac.jp)

### LinkedIn

[www.linkedin.com/in/zen-somei](https://www.linkedin.com/in/zen-somei)

## Skills

C, C++, C#, Unity, Python, R,  
VR development,  
hand sensing.

## Languages

Japanese, English, Chinese.

## Interests

haptics, virtual reality, metaverse,  
augmented reality, engineering,  
human computer interaction,  
ultrasound.

