

Kenji Tojo

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About

I am a Ph.D. student at The University of Tokyo studying computer graphics. My research focuses on the intersection of inverse rendering and geometric modeling.

Education

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| Ph.D. Information Science and Technology – The University of Tokyo | <i>Apr 2023 – Present</i> |
| ◦ Adviser: Nobuyuki Umetani | |
| M.S. Information Science and Technology – The University of Tokyo | <i>Apr 2021 – Mar 2023</i> |
| ◦ Adviser: Nobuyuki Umetani | |
| ◦ Dean's prize for best M.S. thesis | |
| B.S. Information Science – The University of Tokyo | <i>Apr 2017 – Mar 2021</i> |
| ◦ Thesis Adviser: Takeo Igarashi | |

Publications

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| The Mokume Dataset and Inverse Texturing of Solid Wood | <i>Aug 2025</i> |
| ◦ Maria Larsson, Hodaka Yamaguchi, Ehsan Pajouheshgar, I-Chao Shen, Kenji Tojo , Chia-Ming Chang, Lars Hansson, Olof Broman, Takashi Ijiri, Ariel Shamir, Wenzel Jakob, Takeo Igarashi | |
| ◦ <i>ACM Transactions on Graphics (presented at SIGGRAPH 2025)</i> | |
| GreenCloud: Volumetric Gradient Filtering via Regularized Green's Functions | <i>Jul 2025</i> |
| ◦ Kenji Tojo , Nobuyuki Umetani | |
| ◦ <i>Computer Graphics Forum (presented at SGP 2025)</i> | |
| 3D Gabor Splatting: Reconstruction of High-frequency Surface Texture using Gabor Noise | <i>Apr 2025</i> |
| ◦ Haato Watanabe, Kenji Tojo , Nobuyuki Umetani | |
| ◦ <i>Eurographics 2025 – Short Papers</i> | |
| Free-form Floor Plan Design using Differentiable Voronoi Diagram | <i>Oct 2024</i> |
| ◦ Xuanyu Wu, Kenji Tojo , Nobuyuki Umetani | |
| ◦ <i>Pacific Graphics 2024</i> | |
| Fabricable 3D Wire Art | <i>Aug 2024</i> |
| ◦ Kenji Tojo , Ariel Shamir, Bernd Bickel, Nobuyuki Umetani | |
| ◦ <i>SIGGRAPH 2024 Conference Proceedings</i> | |
| Stealth Shaper: Reflectivity Optimization as Surface Stylization | <i>Aug 2023</i> |
| ◦ Kenji Tojo , Ariel Shamir, Bernd Bickel, Nobuyuki Umetani | |
| ◦ <i>SIGGRAPH 2023 Conference Proceedings</i> | |
| Recolorable Posterization of Volumetric Radiance Fields Using Visibility-Weighted Palette Extraction | <i>Jul 2022</i> |
| ◦ Kenji Tojo , Nobuyuki Umetani | |
| ◦ <i>Computer Graphics Forum (presented at EGSR 2022)</i> | |
| Neural Motion Compression with Frequency-adaptive Fourier Feature Network | <i>Apr 2022</i> |
| ◦ Kenji Tojo , Nobuyuki Umetani | |
| ◦ <i>Eurographics 2022 – Short Papers</i> | |

Experience

- Visiting Researcher** – ETH Zürich, *Zürich, Switzerland* *Jun 2025 – Aug 2025*
◦ Mentor: Bernd Bickel
- Visiting Researcher** – MBZUAI, *Abu Dhabi, United Arab Emirates* *Sep 2024 – Nov 2024*
◦ Mentor: Hao Li
- Visiting Researcher** – ISTA, *Klosterneuburg, Austria* *Dec 2023 – Jan 2024*
◦ Mentor: Bernd Bickel
- Software Engineer Intern** – Morgenrot Inc., *Tokyo, Japan* *Mar 2023*
- Research Assistant** – The University of Tokyo, *Tokyo, Japan* *Feb 2021 – Mar 2021*
◦ Mentor: Takeo Igarashi

Teaching

- CV 802: ADVANCED 3D COMPUTER VISION** – MBZUAI *Autumn, 2024*
◦ **Invited Lecturer** – Topic: *Differentiable Rendering*

Awards

- Dean's prize for outstanding Master's research** – The University of Tokyo *Mar 2023*
◦ Best Master's thesis of the year in the Creative Informatics Department
- Japan Society for the Promotion of Science Research Fellow (DC1)** *Apr 2023 — Mar 2026*
◦ 2,400,000 JPY / year

Coursework

- Math:** Calculus, Linear Algebra, Differential Equations, Statistics, Continuous Optimization, Stochastic Process, Discrete Mathematics, Mathematical Logic, etc.
- CS:** Computer Graphics, Physics-based Animation, Image/Video Coding, Machine Learning, User Interface, Remote Sensing, Compilers, Complexity Theory, etc.

Technical skills

- Programming:** C++, OpenGL, Eigen, CUDA, Python, Pytorch, Pybind11 etc.
- Creative:** Adobe Illustrator, Adobe Premiere Pro, Blender, etc.

Test scores

- TOEFL iBT:** 105 (October 15, 2022)