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

Ph.D. Information Science and Technology – The University of Tokyo   *Apr 2023 – Present*
- Adviser: Nobuyuki Umetani

M.S. Information Science and Technology – The University of Tokyo   *Apr 2021 – Mar 2023*
- Adviser: Nobuyuki Umetani
- Dean's prize for best M.S. thesis

B.S. Information Science – The University of Tokyo   *Apr 2017 – Mar 2021*
- Thesis Adviser: Takeo Igarashi

Publications

The Mokume Dataset and Inverse Texturing of Solid Wood   *Aug 2025*
- 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
- *ACM Transactions on Graphics (presented at SIGGRAPH 2025)*

GreenCloud: Volumetric Gradient Filtering via Regularized Green's Functions   *Jul 2025*
- **Kenji Tojo**, Nobuyuki Umetani
- *Symposium of Geometry Processing (SGP) 2025* – **Best Paper Honorable Mention**

3D Gabor Splatting: Reconstruction of High-frequency Surface Texture using Gabor Noise   *Apr 2025*
- Haato Watanabe, **Kenji Tojo**, Nobuyuki Umetani
- *Eurographics 2025 – Short Papers*

Free-form Floor Plan Design using Differentiable Voronoi Diagram   *Oct 2024*
- Xuanyu Wu, **Kenji Tojo**, Nobuyuki Umetani
- *Pacific Graphics 2024*

Fabricable 3D Wire Art   *Aug 2024*
- **Kenji Tojo**, Ariel Shamir, Bernd Bickel, Nobuyuki Umetani
- *SIGGRAPH 2024 Conference Proceedings*

Stealth Shaper: Reflectivity Optimization as Surface Stylization   *Aug 2023*
- **Kenji Tojo**, Ariel Shamir, Bernd Bickel, Nobuyuki Umetani
- *SIGGRAPH 2023 Conference Proceedings*

Recolorable Posterization of Volumetric Radiance Fields Using Visibility-Weighted Palette Extraction   *Jul 2022*
- **Kenji Tojo**, Nobuyuki Umetani
- *Eurographics Symposium on Rendering (EGSR) 2022*

Neural Motion Compression with Frequency-adaptive Fourier Feature Network   *Apr 2022*
- **Kenji Tojo**, Nobuyuki Umetani
- *Eurographics 2022 – Short Papers*

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, nanobind etc.

Creative: Adobe Illustrator, Adobe Premiere Pro, Blender, Unreal Engine, etc.

Test scores

TOEFL iBT: 105 (October 15, 2022)