Kenji Tojo

knjtojo@g.ecc.u-tokyo.ac.jp https://kenji-tojo.github.io/

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

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
- *Computer Graphics Forum (presented at EGSR 2022)*

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

Experience

Software Engineer Intern – Morgenrot Inc., *Tokyo, Japan* *Mar 2023*

Research Assistant – The University of Tokyo, *Tokyo, Japan* *Feb 2021 – Mar 2021*
- Mentor: Takeo Igarashi

Awards

Dean's prize for outstanding Master's research – The University of Tokyo *Mar 2023*
- Best Master's thesis of the year at 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 Processes, 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)