# KENT FUJIWARA, PH. D.

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### Education

• The University of Tokyo — Tokyo, Japan

Ph.D.: Apr. 2009 - Mar. 2013

- Department of Information and Communication Engineering, Graduate School of Information Science and Technology
- Thesis title: Non-rigid Registration for Shape Analysis
- Supervisor: Professor Dr. Katsushi Ikeuchi
- The University of Tokyo Tokyo, Japan

M.E.: Apr. 2007 - Mar. 2009

- Department of Information and Communication Engineering, Graduate School of Information Science and Technology
- Thesis title: Simultaneous Non-rigid Registration of Multiple Objects
- Supervisor: Professor Dr. Katsushi Ikeuchi
- Keio University Kanagawa, Japan

B.A.: Apr. 2003 - Mar. 2007

- Faculty of Environmental Information
- Graduation Project: Analysis of Japanese Ancient Bronze Mirrors using Range Data
- Advisor: Professor Dr. Koichi Furukawa

# Experience

• LY Corporation (Formerly LINE Corporation) — Tokyo, Japan

Research Scientist: Mar. 2018 – Present

- ✓ Proposed machine learning algorithm for analyzing shapes in point cloud format (CVPR 2020)
- ✓ Organized joint research between LINE and Matsushita Lab. of Osaka University (ICCV 2021 x2, ICRA 2021, IJCV 2022)
- √ Conducted research on skeletal motion analysis (AAAI 2023, ICCV 2023, CVPR 2024)
- Denso IT Laboratory Tokyo, Japan

Associate Researcher: Apr. 2016 - Mar. 2018

- ✓ Proposed novel machine learning algorithm related to LiDAR 3D sensors
- ✓ Proposed LiDAR related algorithms for Autonomous Driving division in Denso group
- NTT Communication Science Laboratories Atsugi, Kanagawa

Research Associate: Apr. 2014 – Mar. 2016

- ✓ Proposed 3D reconstruction method from images of specific category.
- √ Assisted in external projects dealing with human motion analysis and letter recognition
- **Kagoshima Univ./The University of Tokyo** Kagoshima/Tokyo, Japan *Project Research Associate: Apr.* 2013 *Mar.* 2014
  - Supported by the Funding Program for Next Generation World-Leading Researchers (NEXT Program).
  - ✓ Proposal of algorithm for completing shapes in motion sequence.
- The University of Tokyo Tokyo, Japan Research Assistant Apr. 2010 Mar. 2012, Jan. 2013 Mar. 2013
  - Supported by the Global Center of Excellence Program, Japan Society for the Promotion of Science.

#### Selected Publication

- Q. Yu, M. Tanaka, and **K. Fujiwara**, "Exploring Vision Transformers for 3D Human Motion-Language Models with Motion Patches," *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2024.
- M. Tanaka, and K. Fujiwara, "Role-aware Interaction Generation from Textual Description," Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV), 2023. (Oral)
- Q. Yu, and **K. Fujiwara**,"Frame-Level Label Refinement for Skeleton-Based Weakly-Supervised Temporal Action Localization," *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*, 2023. **(Oral)**
- F. Li, **K. Fujiwara**, F. Okura, and Y. Matsushita, "Shuffled Linear Regression with Outliers in Both Covariates and Responses," *International Journal of Computer Vision (IJCV)* 2022: 1-20.
- F. Li, **K. Fujiwara**, F. Okura, and Y. Matsushita, "Generalized Shuffled Linear Regression," *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, pp. 6474-6483, 2021.**(Oral)**
- F. Li, **K. Fujiwara**, F. Okura, and Y. Matsushita, "Li, Feiran, Kent Fujiwara, Fumio Okura, and Yasuyuki Matsushita. "A closer look at rotation-invariant deep point cloud analysis," *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, pp. 16218-16227, 2021.
- **K. Fujiwara**, T. Hashimoto, "Neural Implicit Embedding for Point Cloud Analysis," *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 11734-11743, 2020.
- K. Fujiwara, K. Nishino, J. Takamatsu, B. Zheng, K. Ikeuchi, "Locally Rigid Globally Non-rigid Surface Registration," *Proceedings of IEEE International Conference on Computer Vision (ICCV)*, pg. 1527 1534, 2011.

## Skills and Qualifications

- **Fields of Interest:** Machine learning algorithms, geometric data analysis, computer vision, image processing, geometric reconstruction, motion analysis
- OS: Mac OS X, Windows, Ubuntu, CentOS
- Programming: C++, Java, Matlab, LaTeX, Python, Processing, PostgreSQL, HTML5, CSS3.
- Tools and Systems: Eclipse, Microsoft Visual Studio, Visual Studio Code, Vim, Atom, Git, CMake, OpenCV, Qt, tensorflow, keras, pytorch, Jupyter, django.
- Language: Japanese, English, (TOEFL CBT: 286/300), French, German (Conversational Level)