Kento Nishi

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Education

Harvard College   2022-present
Bachelor's and Master's degree candidate in Computer Science. Class of 2026. GPA: 3.959.   Cambridge, Massachusetts
Research Intern, Harvard Visual Computing Group / Harvard-NTT Intelligent Systems Group.

Lynbrook High School   2018-2022
Valedictorian. Class of 2022. GPA: 4.0 (Unweighted).   San Jose, California

Languages: Bilingual Japanese & English. **Certificates:** NVIDIA Deep Learning Institute "Fundamentals of Deep Learning for Computer Vision," Stanford "Machine Learning." **Skills:** Python, TypeScript/JS, C++, Java; PyTorch, Svelte, OpenGL.

Publications & Research

Joint-Task Regularization for Partially Labeled Multi-Task Learning   Feb. 2024
Conference on Computer Vision and Pattern Recognition (IEEE/CVF CVPR 2024)
- **Kento Nishi**, Junsik Kim, Wanhua Li, Hanspeter Pfister.

Towards an Understanding of Stepwise Inference in Transformers: A Synthetic Graph Navigation Model   Feb. 2024
International Conference on Machine Learning (ICML 2024)
- Mikail Khona, Maya Okawa, Rahul Ramesh, **Kento Nishi**, Robert P. Dick, Ekdeep Singh Lubana, Hidenori Tanaka.

Stepwise Inference in Transformers: Exploring a Synthetic Graph Navigation Task   Dec. 2023
Conference on Neural Information Processing Systems (NeurIPS 2023)   R0-FoMo
- Mikail Khona, Maya Okawa, Rahul Ramesh, **Kento Nishi**, Robert P. Dick, Ekdeep Singh Lubana, Hidenori Tanaka.
- Paper and poster in the Robustness of Few-shot and Zero-shot Learning in Large Foundation Models workshop.

Augmentation Strategies for Learning with Noisy Labels   Jun. 2021
Conference on Computer Vision and Pattern Recognition (IEEE/CVF CVPR 2021)   pp. 8022-8031
- **Kento Nishi**, Yi Ding, Alex Rich, Tobias Höllerer.
- Presented a video and poster in the main 2021 CVPR conference. Cited 120 times as of August 2024.

Improving Label Noise Robustness with Data Augmentation and Semi-Supervised Learning   Feb. 2021
Association for the Advancement of Artificial Intelligence (AAAI 2021)   pp. 15855-15856
- **Kento Nishi**, Yi Ding, Tobias Höllerer.
- Presented a short paper and poster. Predecessor to the CVPR 2021 publication.

Other Research
- **Research Fellow**, 2024 Harvard Program for Research in Science and Engineering (PRISE).
- **Invited Speaker**, 2022 Forum on Information Technology (FIT) Conference Top Conference Session.

Awards

John Harvard Scholarship   2023
Top 5% of the Harvard College Class of 2026 in the 2023 Academic Year.

Ezoe Memorial Recruit Foundation Scholarship Recipient   2023-2024
One of Japan's most selective scholarship programs for student researchers (roughly 6 recipients per year).

Regeneron Science Talent Search Top 300 Scholar   2022
Awarded for thesis titled "Augmentation Strategies for Learning With Insufficient Data."

Projects & Libraries

LiveTL: Founding developer of a suite of free/open-source apps for improved broadcasting/viewing of online livestreams (LiveTL, HyperChat, YtcFilter). 100K+ total users, 750+ total stars on GitHub, and 20+ contributors from 10+ countries.
Hololive English Christmas Advent Calendar: Developed holoen-advent.com as an officially commissioned project under Hololive English (Cover Corp). Served 50K+ unique viewers in Dec. 2022 and 140K+ unique viewers in Dec. 2023.
Torch Pitch Shift: First pitch-shifting Python library with GPU support for ML. 400K+ downloads/month. 125+ stars on GitHub. Developed alongside torch-audiomentations (900+ stars on GitHub) with the Asteroid open-source dev team.