Yoichi Ishibashi, Ph.D.

Last Updated: Oct. 13, 2026

Biography

Yoichi Ishibashi is a researcher at NEC.
He received a bachelor's degree from Kyoto Sangyo University, Kyoto, Japan, in 2018, and master's and Ph.D. degrees from Nara Institute of Science and Technology (NAIST) in 2020 and 2023, respectively.

His research interests include large language models (LLMs), coding agents, and recursive self-improvement.

Contact Information

Affiliation: Generative AI Group,
Knowledge Science Research Laboratories,
NEC Corporation
LinkedIn: https://www.linkedin.com/in/yoichi-ishibashi-linkdin/
Website: https://yoichi1484.github.io/

Education

Nara Institute of Science and Technology
Augmented Human Communication Laboratory
April 2020 - March 2023, Nara, Japan
Doctor of Engineering
Thesis title: "Semantic Operations on an Embedding Space"
Supervisor: Professor Satoshi Nakamura
Subadvisor: Associate Professor Katsuhito Sudoh

Nara Institute of Science and Technology
Augmented Human Communication Laboratory
April 2018 - March 2020, Nara, Japan
Master of Engineering
Thesis title: "Reflection-based Word Attribute Transfer"
Supervisor: Professor Satoshi Nakamura
Subadvisor: Associate Professor Katsuhito Sudoh

Kyoto Sangyo University
April 2014 - March 2018, Kyoto, Japan
Bachelor of Computer Science and Engineering
Thesis title: "Generating Responses based on Information Visually-Induced by Text Utterance"
Supervisor: Professor Hisashi Miyamori

President's Award (**1st in Faculty**)

Research Interests

My research interests include **large language models (LLMs)**, **coding agents**, and **recursive self-improvement**.

Research Experience

Researcher
NEC Corporation, Generative AI Group,
Knowledge Science Research Laboratories, Japan
April 2024 - Present
Research Topic: Self-improving LLM, Reasoning model, Continual pretraining, Algorithm discovery

Program-Specific Researcher
Kyoto University, Kyoto, Japan
April 2023 - March 2024
Research Topic: Knowledge Editing, LLM Agent, and Fine-tuning

Research Intern (Visiting Research Student)
Advisor: *Prof. Danushka Bollegala*
The University of Liverpool, Department of Computer Science,
Natural Language Processing Group, Liverpool, UK
February 2022 - July 2022
Research Topic: Prompt Learning

Research Assistant
with *Prof. Satoshi Nakamura*
Nara Institute of Science and Technology, Nara, Japan
April 2020 - March 2023

Researcher
Nara Institute of Science and Technology, Nara, Japan
October 2019 - March 2023
Research Topic: Word Embeddings

Teaching Experience

Teaching Assistant at the Nara Institute of Science and Technology
Sequential Data Modeling, Fall 2019
Data Engineering, Fall 2019
Machine Learning, Spring 2019

Teaching Assistant at the Kyoto Sangyo University

Multimedia Coding, Fall 2017

Research Papers

Taro Yano, **Yoichi Ishibashi**, Masafumi Oyamada.
Tail Competition Explains Scaling in Best-of-N Sampling for Verifiable Problems
*In Advances in Neural Information Processing Systems (**NeurIPS 2026**), 2026.*

Yoichi Ishibashi, Taro Yano, Masafumi Oyamada.
Effective Harness Engineering for Algorithm Discovery with Coding Agents
*In ICML 2026 AI for Science Workshop (**ICML 2026 Workshop**), 2026.*

Haowen Li, **Yoichi Ishibashi**, Masafumi Oyamada.
Evaluating the Impact of Reviewer Guideline Design on LLM-Based Automated Peer Review
*In Findings of the Association for Computational Linguistics (**ACL 2026 Findings**), 2026.*

Taro Yano, **Yoichi Ishibashi**, Masafumi Oyamada.
LaMDAgent: An Autonomous Framework for Post-Training Pipeline Optimization via LLM Agents
*In Proceedings of the 2025 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2025**), November 2025.*

Yoichi Ishibashi, Taro Yano, Masafumi Oyamada.
Mining Hidden Thoughts from Texts: Evaluating Continual Pretraining with Synthetic Data for LLM Reasoning
Preprint, May. 2025.

Yunzhen He, Yusuke Takase, **Yoichi Ishibashi**, Hidetoshi Shimodaira.
DeLTa: A Decoding Strategy based on Logit Trajectory Prediction Improves Factuality and Reasoning Ability
*Proceedings of the 2nd Workshop on Uncertainty-Aware NLP (**UncertaiNLP 2025**), March. 2025.*

Yoichi Ishibashi, Taro Yano, Masafumi Oyamada.
Can Large Language Models Invent Algorithms to Improve Themselves?
*In Proceedings of the 2025 Conference of the Nations of the Americas Chapter of the Association for Computational Linguistics (**NAACL 2025**), March 2025.*

Yoichi Ishibashi, Yoshimasa Nishimura.
Self-Organized Agents: A LLM Multi-Agent Framework toward Ultra

Large-Scale Code Generation and Optimization
Preprint, March. 2024.

Yoichi Ishibashi, Sho Yokoi, Katsuhito Sudoh, Satoshi Nakamura.
Subspace Representations for Soft Set Operations and Sentence Similarities
*In Proceedings of the 2024 Conference of the North American Chapter of the Association for Computational Linguistics (**NAACL 2024**), June 2024.*

Yoichi Ishibashi, Hidetoshi Shimodaira.
Knowledge Sanitization of Large Language Models
Preprint, September. 2023.

Yoichi Ishibashi, Danushka Bollegala, Katsuhito Sudoh, Satoshi Nakamura.
Evaluating the Robustness of Discrete Prompts
*In Proceedings of the 17th Conference of the European Chapter of the Association for Computational Linguistics (**EACL 2023**), May 2023.*

Kosuke Takahashi, **Yoichi Ishibashi**, Katsuhito Sudoh, Satoshi Nakamura.
Multilingual Machine Translation Evaluation Metrics Fine-tuned on Pseudo-Negative Examples for WMT 2021 Metrics Task
*In Proceedings of the Sixth Conference on Machine Translation (**WMT 2021**), 1031 - 1034, November 2021.*

Yoichi Ishibashi, Katsuhito Sudoh, Koichiro Yoshino, Satoshi Nakamura.
Reflection-based Word Attribute Transfer.
In Journal of Natural Language Processing, vol.28, no.1, March 2021.

Yoichi Ishibashi, Katsuhito Sudoh, Koichiro Yoshino, Satoshi Nakamura.
Reflection-based Word Attribute Transfer.
*In Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (**ACL 2020**): Student Research Workshop, 51 - 58, July 2020.*

Yoichi Ishibashi, Katsuhito Sudoh, Koichiro Yoshino, Satoshi Nakamura.
Reflection-based Word Attribute Transfer.
*Third International Workshop on Symbolic-Neural Learning (**SNL 2019**), July 2019.*

Yoichi Ishibashi, Hisashi Miyamori.
Generating Responses based on Information Visually-Induced by Text Utterance.

Technical Report, December 2017.

Yoichi Ishibashi, Sho Sugimoto, Hisashi Miyamori.
KSU Teams Dialogue System at the NTCIR-13 Short Text Conversation Task 2.
*In Proceedings of the 13th **NTCIR** Conference on Evaluation of Information Access Technologies, 248 - 256, December 2017.*

Domestic Conferences

何昀臻, 高瀬侑亮, 石橋陽一, 下平英寿
大規模言語モデルにおける幻覚緩和のための単語確率の外挿
言語処理学会 第 30 回 年次大会 (NLP 2024), リクルート賞 **(1/599)**

石橋 陽一, 横井 祥, 須藤 克仁, 中村 哲
正準角および部分空間に基づく BERTScore の拡張
言語処理学会 第 29 回 年次大会 (NLP 2023)

石橋 陽一, 横井 祥, 須藤 克仁, 中村 哲
学習済み埋め込み空間の線型部分空間を用いた集合演算
第 36 回 人工知能学会全国大会 (JSAI2022)

石橋 陽一, 横井 祥, 須藤 克仁, 中村 哲
線型部分空間に基づく学習済み単語埋込空間上の集合演算
言語処理学会 第 28 回 年次大会 (NLP 2022), 若手奨励賞 **(12/280)**

高橋 洸丞, 石橋 陽一, 須藤 克仁, 中村 哲
単語属性変換で作成した疑似負例データを用いた自動機械翻訳評価
言語処理学会第 28 回年次大会 (NLP 2022)

石橋 陽一, 横井 祥, 須藤 克仁, 中村 哲
学習済み埋め込み空間における集合演算
第 24 回 情報論的学習理論ワークショップ (IBIS 2021)

石橋 陽一, 横井 祥, 須藤 克仁, 中村 哲
量子論理に基づく単語埋込集合間の論理演算
NLP 若手の会 第 16 回 シンポジウム (YANS 2021)

石橋 陽一, 須藤 克仁, 中村 哲
単語属性変換による自然言語推論データの拡張
言語処理学会 第 27 回 年次大会 (NLP 2021)

石橋 陽一, 須藤 克仁, 吉野 幸一郎, 中村 哲
鏡映変換に基づく埋め込み空間上の単語属性変換
言語処理学会 第 26 回 年次大会 (NLP 2020), 優秀賞 **(6/396)**

石橋 陽一, 須藤 克仁, 吉野 幸一郎, 中村 哲
鏡映変換に基づく埋め込み空間上の単語属性変換

NLP 若手の会 第 13 回 シンポジウム (YANS 2019), 奨励賞 **(7/93)**

石橋 陽一, 須藤 克仁, 吉野 幸一郎, 中村 哲
鏡映変換に基づく埋め込み空間上の単語属性変換
情報処理学会 第 241 回 自然言語処理研究会, 優秀研究賞 **(3/28)**

石橋 陽一, 森 泰, 木村 輔, 宮森 恒
質問文から連想した画像特徴量を用いた質問応答モデル
言語処理学会 第 25 回 年次大会 (NLP 2019)

杉本 翔, 石橋 陽一, 宮森 恒
ペルソナベクトルの演算に応じた新たな個性での対話応答文生成
第 10 回 データ工学と情報マネジメントに関するフォーラム (DEIM 2018)

石橋 陽一, 宮森 恒
連想対話モデル：発話文から連想した視覚情報を用いた応答文生成
第 10 回 データ工学と情報マネジメントに関するフォーラム (DEIM 2018)

Awards and Funding

Sponsor Award (NLP 2024)
The 30th Annual Meeting of the Association for Natural Language Processing
言語処理学会第 30 回年次大会 (NLP 2024) リクルート賞 (599 件中 1 件)
2024

Young Researcher Encouragement Award (NLP 2022)
The 28th Annual Meeting of the Association for Natural Language Processing
言語処理学会第 28 回年次大会 (NLP 2022) 若手奨励賞 (280 人中 12 人)
2022

NAIST Research Grant (NAIST)
Foundation for Nara Institute of Science and Technology
1,000,000 JPY for a year
2021 - 2022

Outstanding Paper Award (NLP 2020)
The 26th Annual Meeting of the Association for Natural Language Processing
言語処理学会第 26 回年次大会 (NLP 2020) 優秀賞 (396 件中 6 件)
2020

Encouragement Award (YANS 2019)
The 15th Symposium of Young Researcher Association for NLP Studies
NLP 若手の会第 14 回シンポジウム (YANS 2019) 奨励賞 (93 件中 7 件)
2019

Excellent Research Award (IPSJ NL241)
Information Processing Society of Japan SIG-NL 241
情報処理学会 第 241 回自然言語処理研究会 優秀研究賞 (28 件中 3 件)
2019

President's Award
Kyoto Sangyo University
1st in faculty
2018

Musubiwaza Fellowship
Kyoto Sangyo University
Tuition Waiver
2015-2016, 2018

The 20th Anniversary Special Award
Competition on Science and Technology Ideas (Techno-ai)
2016

Incentive Award
Competition on Science and Technology Ideas (Techno-ai)
2016

Research Projects

Artificial Tactile

Summer 2016

Developing the artificial tactile device using pressure sensors and convolutional neural networks

Demo video: https://youtu.be/n8lJgM3Qd-I

Project page: https://yoichi1484.github.io/about/

The 20th Anniversary Special Award, Competition on science and technology ideas, 2016

Incentive Award, Competition on science and technology ideas, 2016