

ANDREW GAMBARDELLA

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EDUCATION

University of Oxford Oxford, United Kingdom Doctor of Philosophy in Engineering Science St. Catherine's College Supervisor: Professor Philip H. S. Torr	January 2017 - November 2021
University of California, Berkeley Berkeley, California, United States of America Major in Electrical Engineering and Computer Science Minors in Mathematics and Japanese	August 2010 - December 2013
Central Bucks High School West Doylestown, Pennsylvania, United States of America	August 2007 - May 2010

PROFESSIONAL EXPERIENCE

University of Tokyo Bunkyo, Tokyo, Japan Postdoctoral Researcher Supervisor: Professor Yutaka Matsuo	August 2023 -
KAIST Yuseong, Daejeon, South Korea Visiting Researcher/Postdoctoral Researcher Supervisor: Professor Jinjoon Lee	March 2022 - March 2023
Cogent Labs (formerly Reactive, Inc.) Shibuya, Tokyo, Japan Research Engineer	July 2016 - December 2016
SoftBank Robotics Minato, Tokyo, Japan Research Engineer	April 2015 - May 2016
UC Berkeley Berkeley, California, United States of America Undergraduate Researcher Supervisor: Professor Satish Rao	August 2012 - March 2015

PUBLICATIONS

Inconsistent Tokenizations Cause Language Models to be Perplexed by Japanese Grammar. **Andrew Gambardella**, Takeshi Kojima, Yusuke Iwasawa, Yutaka Matsuo. In Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics, 2025.

Answer When Needed, Forget When Not: Language Models Pretend to Forget via In-Context Knowledge Unlearning. Shota Takashiro, Takeshi Kojima, **Andrew Gambardella**, Qi Cao, Yusuke Iwasawa, Yutaka Matsuo. In Findings of the 63rd Annual Meeting of the Association for Computational Linguistics, 2025.

Which Programming Language and What Features at Pre-training Stage Affect Downstream Logical Inference Performance?. Fumiya Uchiyama, Takeshi Kojima, **Andrew Gambardella**, Qi Cao, Yusuke Iwasawa, Yutaka Matsuo. In Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing, 2024.

Real-World Robot Applications of Foundation Models: A Review. Kento Kawaharazuka, Tatsuya Matsushima, **Andrew Gambardella**, Jiaxian Guo, Chris Paxton, Andy Zeng. Advanced Robotics, 2024.

Language Models Do Hard Arithmetic Tasks Easily and Hardly Do Easy Arithmetic Tasks. **Andrew Gambardella**, Yusuke Iwasawa, Yutaka Matsuo. In Proceedings of the 62nd Annual Meeting of the Association for Computational Linguistics, 2024.

gOd, mOther and sOldier: A Story of Oppression, Told Through the Lens of AI. **Andrew Gambardella**, Meeyung Chung, Doyo Choi, Jinjoon Lee. Leonardo, 2023.

Deep Transfer Learning with Bayesian Inference. **Andrew Gambardella**. DPhil Thesis, 2021

Detecting and Quantifying Malicious Activity with Simulation-based Inference. **Andrew Gambardella**, Bogdan State, Naeemullah Khan, Leo Tsourides, Philip H. S. Torr, Atılım Güneş Baydin. In International Conference on Machine Learning: Workshop on Socially Responsible Machine Learning, 2021.

Hierarchical Semantic Sonification for the Visually Impaired. **Andrew Gambardella**, Jinjoon Lee. In IJCAI: Workshop on Artificial Intelligence for Social Good, 2021.

Simulation-Based Inference for Global Health Decisions. Christian Schroeder de Witt, Bradley Gram-Hansen, Nantas Nardelli, **Andrew Gambardella**, Rob Zinkov, Puneet Dokania, N. Siddharth, Ana Belen Espinosa-Gonzalez, Ara Darzi, Philip Torr, Atılım Güneş Baydin. In International Conference on Machine Learning Workshop: ML for Global Health, 2020.

Multitask Soft Option Learning. Maximilian Igl, **Andrew Gambardella**, Nantas Nardelli, N. Siddharth, Wendelin Böhmer, Shimon Whiteson. In Uncertainty in Artificial Intelligence, 2020.

PREPRINTS

Crypto-LLM: Two-Stage Language Model Pre-training with Ciphred and Natural Language Data. Yohei Kobashi, Takeshi Kojima, **Andrew Gambardella**, Qi Cao, Yusuke Iwasawa, Yutaka Matsuo. In submission, 2024.

Inside Head: Uncertainty Quantification for LLMs based on Internal Discrepancy. Qi Cao, **Andrew Gambardella**, Takeshi Kojima, Yutaka Matsuo, Yusuke Iwasawa. In submission, 2024.

Efficient Data Mosaicing with Simulation-based Inference. **Andrew Gambardella**, Youngjun Choi, Doyo Choi, Jinjoon Lee. ArXiv Preprint, 2023.

Transflow Learning: Few-shot Adaptation for Normalizing Flow Models. **Andrew Gambardella**, Atılım Güneş Baydin, Philip H. S. Torr. ArXiv Preprint, 2019.

PROFICIENCIES

Computer Languages	Python, Lua, Java, C, Scheme, MATLAB
Software & Tools	PyTorch, JAX, NumPy, Pyro, NumPyro
Natural Languages	English (Native), Japanese (Bilingual), Korean (Advanced)

CERTIFICATIONS

Japan Kanji Aptitude Test (Kanji Kentei), Level 2	November 2023
Japanese Language Proficiency Test, N1	December 2014

REVIEWING

ACL Rolling Review
ICML
NeurIPS Preregistration Workshop

12/23, 06/24, 08/24, 10/24, 12/24, 02/25, 05/25
2022
2020, 2021

RESEARCH GRANTS

Korea Foundation
Meta
Microsoft

March 2022 - October 2022
January 2020 - December 2020
January 2017 - December 2019

TEACHING

KAIST CTP404, Creative Practice, Teaching Assistant

Fall 2022