

Hayate Iso

PHD IN ENGINEERING · NLP RESEARCHER

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Research Interests

Large Language Models Prompt Optimization, Retrieval Augmented Generation, Long Context Understanding
Text Generation Opinion Summarization, Data-to-Text Generation, Fact-based Text Editing
Information Extraction Zero-shot Triplet Extraction, Entity-linking

Experience

Megagon Labs

RESEARCH SCIENTIST / RESEARCH ASSOCIATE / CONTRACTOR

Mountain View, CA

Jan. 2021 - present

Amazon

RESEARCH INTERN

Seattle, WA (Remote)

Jul. 2020 - Oct. 2020

Megagon Labs

RESEARCH INTERN

Mountain View, CA

Feb. 2020 - Jul. 2020

ByteDance

RESEARCH INTERN

Beijing, China

May. 2019 - Nov. 2019

Advanced Industrial Science and Technology

TECHNICAL TRAINEE

Tokyo, Japan

Oct. 2018 - Dec. 2018

Japan Society for the Promotion of Science

RESEARCH FELLOWSHIPS FOR YOUNG SCIENTISTS (DC1)

Tokyo, Japan

Apr. 2018 - Feb. 2020

RaRe Technologies

STUDENT INCUBATOR

Remote

Jul. 2016 - Sep. 2016

Education

Nara Institute of Science and Technology

PH.D. IN INFORMATION SCIENCE

Nara, Japan

Oct. 2017 - Mar. 2021

Nara Institute of Science and Technology

M.E. IN INFORMATION SCIENCE

Nara, Japan

Apr. 2016 - Sep. 2017

Osaka University

B.S. IN MATHEMATICAL SCIENCE

Osaka, Japan

Apr. 2014 - Mar. 2016

Publication

- AmbigNLG: Addressing Task Ambiguity in Instruction for NLG**
Ayana Niwa, Hayate Iso
pre-print arXiv: 2402.17717, 2024
- Retrieval Helps or Hurts? A Deeper Dive into the Efficacy of Retrieval Augmentation to Language Models**
Seiji Maekawa, Hayate Iso, Sairam Gurajada, Nikita Bhutani
In North American Chapter of the Association for Computational Linguistics (NAACL), 2024
- Distilling Large Language Models using Skill-Occupation Graph Context for HR-Related Tasks**
Pouya Pezeshkpour, Hayate Iso, Thom Lake, Nikita Bhutani, Estevam Hruschka
pre-print arXiv:2311.06383, 2023
- XATU: A Fine-grained Instruction-based Benchmark for Explainable Text Updates**
Haopeng Zhang, Hayate Iso, Sairam Gurajada, Nikita Bhutani
In Joint International Conference On Computational Linguistics, Language Resources And Evaluation (LREC-COLING), 2024
- Less is More for Long Document Summary Evaluation by LLMs**
Yunshu Wu*, Hayate Iso*, Pouya Pezeshkpour, Nikita Bhutani, Estevam Hruschka
In European Chapter of the Association for Computational Linguistics (EACL), 2024 (Oral + Poster)

6. **Zero-shot Triplet Extraction by Template Infilling**

Bosung Kim, **Hayate Iso**, Nikita Bhutani, Estevam Hruschka, Ndapa Nakashole, Tom M. Mitchell

In *Asia-Pacific Chapter of the Association for Computational Linguistics and International Joint Conference on Natural Language Processing (ACL-IJCNLP)*, 2023

7. **Noisy Pairing and Partial Supervision for Opinion Summarization**

Hayate Iso, Xiaolan Wang, Yoshihiko Suhara

pre-print arXiv: 2211.08723, 2022

8. **AutoTemplate: A Simple Recipe for Lexically Constrained Text Generation**

Hayate Iso

pre-print, arXiv: 2211.08387, 2022

9. **Comparative Opinion Summarization via Collaborative Decoding**

Hayate Iso, Xiaolan Wang, Stefanos Angelidis, Yoshihiko Suhara

In *Findings of the Association for Computational Linguistics (ACL)*, 2022

10. **Convex Aggregation for Opinion Summarization**

Hayate Iso, Xiaolan Wang, Yoshihiko Suhara, Stefanos Angelidis, Wang-Chiew Tan

In *Findings of the Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2021

11. **End-to-end Biomedical Entity Linking with Span-based Dictionary Matching**

Shogo Ujiie, **Hayate Iso**, Shuntaro Yada, Shoko Wakamiya, Eiji Aramaki

Biomedical Natural Language Processing Workshop (BioNLP), 2021

12. **Biomedical Entity Linking with Contrastive Context Matching**

Shogo Ujiie, **Hayate Iso**, Eiji Aramaki

preprint arXiv:2106.07583, 2021

13. **Fact-based Text Editinng**

Hayate Iso, Chao Qiao, Hang Li

In *Proceedings of Association for Computational Linguistics (ACL)*, 2020.

14. **Learning to Select, Track, and Generate for Data-to-Text**

Hayate Iso, Yui Uehara, Tatsuya Ishigaki, Hiroshi Noji, Eiji Aramaki, Ichiro Kobayashi, Yusuke Miyao, Naoaki Okazaki, Hiroya Takamura

In *Proceedings of Association for Computational Linguistics (ACL)*, 2019.

15. **Wisdom in Adversity: A Twitter Study of the Japanese Tsunami**

Paolo Casani, **Hayate Iso**, Shoko Wakamiya, Eiji Aramaki

Advances in Social Networks Analysis and Mining (ASONAM), 2018

16. **NTCIR13 MedWeb Task: Multi-label Classification of Tweets using an Ensemble of Neural Networks**

Hayate Iso, Camille Ruiz, Taichi Murayama, Katsuya Taguchi, Ryo Takeuchi, Hideya Yamamoto, Shoko Wakamiya, Eiji Aramaki

In *Proceedings of NTCIR Conference on Evaluation of Information Access Technologies*, 2017.

17. **Density Estimation for Geolocation via Convolutional Mixture Density Network.**

Hayate Iso, Shoko Wakamiya, Eiji Aramaki

arXiv preprint arXiv:1705.02750, 2017.

18. **Forecasting Word Model: Twitter-based Influenza Surveillance and Prediction**

Hayate Iso, Shoko Wakamiya, Eiji Aramaki

In *Proceedings of International Conference on Computational Linguistics (COLING)*, 2016.

Honors & Awards

2018 **Exemption the full amount of scholarship repayment**, JASSO

2017 **Best System Award (1st place)**, NTCIR13–MedWeb

2016 **Outstanding Research Award**, IPSJ-SIGNL

2016 **Extracurricular Research Funds (\$10,000)**, Osaka University