

Shinhyeok Oh

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Research Interests: NLP, Dialog System, Sentiment Analysis

Yongin-si, Gyeonggi-do

Education

2019.09 - 2021.02 Kangwon National University

(M.S.) Department of Computer and Communications Engineering

GPA: 4.31 / 4.5

2016.03 - 2021.02 Kangwon National University

(B.S.) Department of Computer and Communications Engineering

GPA: 3.86 / 4.5

Experience

2021.04 - Present Netmarble

(Alternative Military

Service)

NLP Researcher & Engineer

2020.09 – 2021.02. **Kakao Enterprise**

(Research Internship) NLP Researcher

2020.03 – 2020.09 Natural Language Processing Lab, Konkuk University

2018.08 – 2020.02 Natural Language Processing Lab, Kangwon National University

Research & Development

Neural Machine Translation

2021.04 - Present Maintenance on Game NMT Service

2021.04 – 2021.07 Research on Automatic Post-editing on NMT using Curriculum Learning

Strategy and Multi-task Learning

TTS with Natural Language Processing

2022.05 – Present Research on Text-to-Speech with NLP Approach

Aspect-based Sentiment Analysis

2020.09 – 2021.02 Research on Aspect-based Sentiment Analysis using Self-supervised and

Multi-task Learning

Dialog System

2021.11 - 2022.04	(PoC) Development of Persona Chatbot using data created by KoGPT3
2021.08 - 2021.10	(PoC) Development of Chatbot with Passage Retrieval
2018.08 - 2020.08	Research on Persona-based Chatbot

Publications (*equal contribution)

International Conferences

[2] **Shinhyeok Oh***, Sion Jang*, Hu Xu*, Shounan An, Insoo Oh, "Netmarble Al Center's WMT21 Automatic Post-Editing Shared Task Submission", Proceedings of the Sixth Conference on Machine Translation (WMT), pp.312-319, 2021.11. **(WMT @EMNLP 2021, 1st place)**

[1] Shinhyeok Oh*, Dongyub Lee*, Taesun Whang, IlNam Park, Gaeun Seo, EungGyun Kim, Harksoo Kim, "Deep Context- and Relation-Aware Learning for Aspect-based Sentiment Analysis", Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (Volume 2: Short Papers), pp. 495–503, 2021.08. (ACL 2021)

International Journals

[2] Gihyeon Choi, **Shinhyeok Oh**, Harksoo Kim, "Improving Document-Level Sentiment Classification Using Importance of Sentences", Entropy, Vol.22(12), pp.1-11, 2020.11. **(SCIE)**

[1] Jintae Kim, **Shinhyeok Oh**, Oh-Woog Kwon, Harksoo Kim, "Multi-Turn Chatbot Based on Query-Context Attentions and Dual Wasserstein Generative Adversarial Networks", Appl. Sci., 3908, 2019.9. (SCIE)

Domestic Publications

[10] **Shinhyeok Oh**, Seokwon Jung, Harksoo Kim, "Method of Reflecting Various Personas in a Chatbot", Journal of KIISE, pp. 160-166, 2021. 2.

[9] HongJin Kim, Damrin Kim, Boeun Kim, Shinhyeok Oh, Harksoo Kim, "Movie Revies Sentiment

- Analysis Considering the Order in which Sentiment Words Appear", Proceedings of the 32th Annual Conference on Human and Cognitive Language Technology, pp. 313-316, 2020.10.
- [8] HongJin Kim, **Shinhyeok Oh**, Harksoo Kim, "Korean Named Entity Recognition Using ELECTRA and Label Attention Network", Proceedings of the 32th Annual Conference on Human and Cognitive Language Technology, pp. 333-336, 2020.10.
- [7] **Shinhyeok Oh**, Harksoo Kim, "Korean Generative Chatbot using Topic Embedding", Proceedings of the 32th Annual Conference on Human and Cognitive Language Technology, pp. 524-528, 2020.10.
- [6] **Shinhyeok Oh**, Harksoo Kim, Jeong-Eom Lee, Seona Kim, Youngmin Park, Myungho Noh, "Personal Characteristics Classifier for Persona Chatbot Research", Proceedings of the Korea Software Congress 2019, pp. 419-421, 2019.12.
- [5] **Shinhyeok Oh**, Jintae Kim, Harksoo Kim, Jeong-Eom Lee, Seona Kim, Youngmin Park, Myungho Noh, "Personalized Multi-Turn Chatbot Based on Dual WGAN", Proceedings of the 31th Annual Conference on Human and Cognitive Language Technology, pp. 49-53, 2019.10.
- [4] HongJin Kim, **Shinhyeok Oh**, Damrin Kim, Boeun Kim, Harksoo Kim, "Multi-head Attention and Pointer Network Based Syllables Dependency Parser", Proceedings of the 31th Annual Conference on Human and Cognitive Language Technology, pp. 572-574, 2019.10.
- [3] **Shinhyeok Oh**, Jintae Kim, Youngmin Park, Seona Kim, Jeong-Eom Lee, Harksoo Kim, "Persona Reflection Method for Generative Chatbot System", Korea Computer Congress 2019, pp. 1761-1763, 2019.06.
- [2] Seongsik Park, **Shinhyeok Oh**, Hongjin Kim, Sihyung Kim, Harksoo Kim, "Korean Dependency Parsing Using ELMo and Multi-head Attention", Proceedings of the 30th Annual Conference on Human and Cognitive Language Technology, pp. 8-12, 2018.10.
- [1] Seongsik Park, **Shinhyeok Oh**, Hongjin Kim, Harksoo Kim, "Korean Dependency Parsing using Multi-head Attention and Pointer Network", Proceedings of the 30th Annual Conference on Human and Cognitive Language Technology, pp. 682-684, 2018.10.

Appointments & Awards

- [6] The 1st Place in the APE task @WMT, EMNLP 2021 (Automatic Post-Editing), 2021.11.
- [5] Special Prize in Korean Language Information Processing Competition (Chatbot), 2020.10.
- [4] Special Prize in Korean Language Information Processing Competition (Sentiment Analysis), 2020.10.
- [3] Bronze Prize in Korean Language Information Processing Competition (Dependency Parsing), 2019.10
- [2] Gold Prize in 1st Kangwon SW Festival, 2019.09.
- [1] Grand Prize in Korean Language Information Processing Competition (Dependency Parsing),

Certificates

 Certificate of Engineer Information Processing, Human Resources Development Service of Korea, 19201110331K

Skills

- Languages: Python, Java, C, C#, HTML/CSS/JS, Android
- Deep Learning Libs: PyTorch, Tensorflow
- Etc.: Springboot, Gnuboard, Google Cloud Platform

Academic Activities

- Reviewer of IEEE Transactions on Audio, Speech and Language Processing