

JAMIN “JAY” SHIN

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EDUCATION

- Hong Kong University of Science and Technology (HKUST)** *Sep 2017 - Feb 2020*
M.Phil. in Electronic and Computer Engineering
Thesis: *Learning to Converse with Empathy in Open-domain Dialogue Systems*
Advised by *Prof. Pascale Fung*
- Hong Kong University of Science and Technology (HKUST)** *Sep 2013 - June 2017*
B.Eng. in Computer Science, Minor in Entrepreneurship
Advised by *Prof. Sunghun Kim*

SELECTED PUBLICATIONS

** indicates equal contribution*

- Evaluating the Knowledge Dependency of Questions**
{Hyeongdon Moon, Yoonseok Yang}*, **Jamin Shin**, Hangeol Yu, Seunghyun Lee, Myeongho Jeong, Juneyoung Park, Minsam Kim, Seungtaek Choi
Corresponding Author, To appear at EMNLP 2022 (Main, Long)
- Towards Zero-Shot Functional Compositionality of Language Models**
Hangeol Yu, Myeongho Jeong, Hyeongdon Moon, Juneyoung Park, {**Jamin Shin**, Seungtaek Choi}*
Co-Corresponding Author, Under Review
- Dialogue Summaries as Dialogue States (DS2), Template-Guided Summarization for Few-shot Dialogue State Tracking**
{**Jamin Shin**, Hangeol Yu, Hyeongdon Moon}*, Andrea Madotto, Juneyoung Park
ACL 2022 (Findings, Long)
- KLUE: Korean Language Understanding Evaluation**
Sungjoon Park and 30 others including Jamin Shin (§3.8 Dialogue State Tracking)
NeurIPS 2021 Datasets and Benchmark Track
- Pedagogical Word Recommendation: A novel task and dataset on personalized vocabulary acquisition for L2 learners**
Jamin Shin, Juneyoung Park
arXiv (2021)
- Tracing Knowledge for Tracing Dropouts: Multi-Task Training for Study Session Dropout Prediction**
Seewoo Lee, Kyu Seok Kim, **Jamin Shin**, Juneyoung Park
EDM 2021
- Fast End-to-End Coreference Resolution for Korean**
Cheoneum Park, **Jamin Shin**, Sungjoon Park, Joonho Lim, Changki Lee
EMNLP 2020, Findings (Long)
- Generating Empathetic Responses by Looking Ahead the User’s Sentiment**
Jamin Shin, Peng Xu, Andrea Madotto, Pascale Fung
ICASSP 2020 (Oral Presentation)
- Attention over Parameters for Dialogue Systems**
Andrea Madotto, Zhaojiang Lin, Chien-Sheng Wu, **Jamin Shin**, Pascale Fung
3rd Conversational AI Workshop, NeurIPS 2019 (Best Paper Award & Oral Presentation)
- CAiRE: An End-to-End Empathetic Chatbot**
Zhaojiang Lin, Peng Xu, Genta Indra Winata, Farhad Bin Siddique, Zihan Liu, **Jamin Shin**, Pascale Fung
AAAI 2020, Demo track

Zero-shot Cross-lingual Dialogue Systems with Transferable Latent Variables

Zihan Liu, **Jamin Shin**, Yan Xu, Genta Indra Winata, Peng Xu, Andrea Madotto, Pascale Fung
EMNLP 2019

MoEL: Mixture of Empathetic Listeners

Zhaojiang Lin, Andrea Madotto, **Jamin Shin**, Peng Xu, Pascale Fung
EMNLP 2019 (Oral Presentation)

Hierarchical Meta-Embeddings for Code-Switching Named Entity Recognition

Genta Indra Winata, Zhaojiang Lin, **Jamin Shin**, Zihan Liu, Pascale Fung
EMNLP 2019

CAiRE_HKUST at SemEval-2019 Task 3: Hierarchical Attention for Dialogue Emotion Classification

Genta Indra Winata, Andrea Madotto, Zhaojiang Lin, **Jamin Shin**, Pascale Fung
NAACL 2019, SemEval Task 3 (Shared task: 4th place out of 160 submissions)

End-to-End Question Answering Models for Goal-Oriented Dialog Learning

Jamin Shin, Andrea Madotto, Minjoon Seo, Pascale Fung
AAAI 2019, Dialog System Technology Challenge 7 (DSTC)

Interpreting Word Embeddings with Eigenvector Analysis

Jamin Shin, Andrea Madotto, Pascale Fung
NeurIPS 2018, Interpretability and Robustness in Audio, Speech, and Language Workshop (IRASL) (Oral Presentation)

Reducing Gender Bias in Abusive Language Detection

Ji Ho Park, **Jamin Shin**, Pascale Fung
EMNLP 2018 (Oral Presentation)

INDUSTRY RESEARCH EXPERIENCE

** mandatory military service as Technical Research Personnel for the Republic of Korea*

NAVER AI Lab*

Aug 2022 - Present

Research Scientist

- Language Research team.

Riiid AI Research*

Research Manager

July 2021 - Aug 2022

- Created and managed a forward-thinking research group (7 people - 2 in USA, 5 in Korea) that focuses on bridging the gap between NLP and Education.
- Supervised research that proposed a novel Automatic Quality Assurance method for Educational Assessment Questions that could be potentially used for both human-made and machine-generated assessment questions.
- Supervised a fundamental research project that explores the functional compositionality of Large Language Models.
- Lead research on using dialogue summarization to achieve SOTA performance on Few-shot Dialogue State Tracking, which would allow Riiid to save data collection costs for educational dialogues.
- 1 work accepted at EMNLP 2022 (Main), 1 work has been accepted at ACL 2022 (Findings), and 1 work is under review.

Research Scientist

May 2020 - July 2021

- Mainly participated in Riiid's flagship English learning app, Santa TOEIC.
- Created the first vocabulary recommendation model and its accompanying dataset for Santa.
- Conducted various experiments and data analysis to expose the weakness of Santa's score prediction in short sequence inputs.

- Participated in Session Dropout Prediction research that aimed to predict when a student would stop using the app during his/her study session.

Amazon Alexa AI

Sep 2019 - Mar 2020

Applied Scientist Intern

- Advised by *Dr. Kai Hui* and *Dr. Weiwei Cheng*.
- As a part of the Alexa Search team, I researched on methods for adapting the question-answering model to new domains of search queries (e.g. COVID-19). Specifically, I investigated the applicability of meta-learning for few-shot domain adaptation of question answering.

NAVER Clova AI

June 2018 - Aug 2018

Research Intern

- Advised by *Prof. Minjoon Seo*.
- Conducted research on End-to-End Dialog Systems using End-to-End Question Answering models.

SOFTWARE ENGINEERING EXPERIENCE

RIDI Corp

June 2017 - August 2017

Software Engineer Intern in RIDI Story Team

Seoul, Korea

- Created an *image optimization server* with CloudFront and Lambda, that significantly reduced book thumbnail image load time using dynamic resizing and caching.
- Created a *browser scroll restoration* feature, which is critical for e-book readers, for the React-native application.
- Implemented a customized Django unit testing framework for the team and added continuous integration with Docker and Travis CI for improved productivity of the team.

nViso

Feb 2016 - Aug 2016

Software Engineer Intern

Lasusanne, Switzerland

- Created an iOS App using nViso Facial Emotion Recognition API.
- Created automatic cross-platform building tools for large-scale C++ libraries for mobile/web real-time facial emotion detection.
- Created client-facing interactive web demos for nViso Facial Emotion Recognition API.

ACADEMIC SERVICES

- Organizer: Workshop on The Imagining Post-COVID Education with AI (TIPCE) at AAAI 2021
- Conference Program Committee Member: ACL/EMNLP/NAACL 2019-2022, CHI 2022
- Workshop Program Committee Member: AAAI-TIPCE 2021, NLP4PI 2021-2022

INVITED TALKS

- SummDial Session @ 26th Workshop on the Semantics and Pragmatics of Dialogue
- NLP Session @ The 6th Joint Conference of Korean Artificial Intelligence Association

HONORS & AWARDS

- HKUST Postgraduate Studentship, 2017 - 2019
- HKUST School of Engineering Deans List Award, 2017
- 2nd place in Cathay Pacific Hackathon, 2016
- Professor Wilson Tang Engineering Scholarship, 2013