

# JAY SHIN

Deep Learning ◊ Natural Language Processing ◊ Dialog Systems ◊ Question Answering

jshin49@gmail.com

jayshin.xyz

## 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

**Ecole Polytechnique Federale de Lausanne (EPFL)**

*Aug 2015 - Jan 2016*

Exchange Student in Computer Science

## SELECTED PUBLICATIONS

---

**KLUE: Korean Language Understanding Evaluation**

Too many authors to list out

Accepted at NeurIPS 2021

**Pedagogical Word Recommendation: A novel task and dataset on personalized vocabulary acquisition for L2 learners**

Jamin Shin, Seewoo Lee, Jineon Baek, Juneyoung Park

(Under review)

**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

Findings of EMNLP 2020

**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

System Demonstration, AAAI 2020

**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-IJCNLP 2019

**MoEL: Mixture of Empathetic Listeners**

Zhaojiang Lin, Andrea Madotto, Jamin Shin, Peng Xu, Pascale Fung

EMNLP-IJCNLP 2019 (Oral Presentation)

## **Hierarchical Meta-Embeddings for Code-Switching Named Entity Recognition**

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

EMNLP-IJCNLP 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

SemEval Task 3, NAACL 2019 (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

Dialog System Technology Challenge (DSTC) 7, AAAI 2019

## **Interpreting Word Embeddings with Eigenvector Analysis**

**Jamin Shin**, Andrea Madotto, Pascale Fung

Interpretability and Robustness in Audio, Speech, and Language Workshop, NeurIPS 2018 (**Best Reviews, Oral Presentation**)

## **Reducing Gender Bias in Abusive Language Detection**

Ji Ho Park, **Jamin Shin**, Pascale Fung

EMNLP 2018 (**Oral Presentation**)

## **RESEARCH & TEACHING EXPERIENCE**

---

### **Riiid AI Research**

*Research Scientist / NLP Team lead*

May 2020 - Present

*Seoul, Korea*

- Built the NLP research team and currently leading it.
- Bridging the gap between NLP and Education.
- Devising NLP research that could change the education scene.

### **Amazon Alexa AI**

*Applied Scientist Intern*

Sep 2019 - Mar 2020

*Berlin, Germany*

- Advised by *Dr. Kai Hui* and *Dr. Weiwei Cheng*.
- Researched on meta learning for few-shot domain adaptation of question answering.

### **NAVER Clova AI**

*Research Intern*

June 2018 - Aug 2018

*Seoul, Korea*

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

### **HKUST Center for AI Research (CAiRE)**

*Research Assistant*

Sep 2017 - Aug 2019

*Hong Kong*

- Conducted research in NLP and Deep Learning algorithms.
- Participated in Kaggle Toxic Comment Challenge, and focused on reducing gender bias in abusive language detection tasks.
- Explored applications of Random Matrix Theory and Matrix Factorization methods for interpreting Word Embeddings.
- Researching on End-to-End (Task-oriented) Dialog Systems involving empathetic response generation.

### **HKUST COMP4901I/ELEC4010I**

*Teaching Assistant for Building Interactive Intelligent Systems*

Feb 2018 - Jun 2018

*Hong Kong*

- Joint course in CSE and ECE departments, taught by Prof. Pascale Fung.
- Significantly contributed in re-designing the lectures as a "Deep Learning for NLP" course for undergraduate students in HKUST.

- Prepared lecture notes on Convolutional Neural Networks (CNN) and Statistical and Neural Language Modeling (LM)
- Taught and prepared the tutorial sessions and homework regarding CNNs and LMs.
- Assisted in grading homework, midterms, and final projects.

## 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 image load time using dynamic resizing and caching.
- Implemented a customized Django unit testing framework for the team.
- Incorporated 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: NAACL, ACL, EMNLP
- Workshop Program Committee Member: AAAI-TIPCE 2021, ACL 2021 NLP4PI

## HONORS & AWARDS

---

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

## TECHNICAL SKILLS

---

### **Tools**

Bash, Git, Vim

### **Languages**

C/C++, Java, Javascript, Python

### **ML Frameworks**

PyTorch, scikit-learn, TensorFlow, mxnet

### **Web Frameworks**

AngularJS, Node.js, React.js