JOONGWON DANIEL KIM

github.com/danieljkim0118 danieljkim0118.github.io danieljkim0118@gmail.com
3945 Chestnut St., Philadelphia PA, 19104 (267)-591-1256

EDUCATION

University of Pennsylvania *Aug 2018 - May 2022 (expected)*
B.A.S. in Computer Science
- GPA: 3.96 / 4.0

RESEARCH EXPERIENCE

Conversational QA with Synthesized Dialogues *Jul 2021 - Present*
Advisors: Mark Yatskar, Chris Callison-Burch
- Formulated a method for collecting a large, synthetic dataset of conversational QA by using People-Also-Ask API.
- Related experiments presented in bachelor's capstone thesis

Language Grounded Multimodal Schema for Video Retrieval *May 2021 - Nov 2021*
Advisors: Mark Yatskar, Chris Callison-Burch
- Induced schema representations of goal-oriented (how-to) tasks from multimodal sources. Proposed methods to modify existing schemas to address unseen tasks. Improved performance on instructional video retrievals.
- Work under review [1]

Learning to Split and Rephrase Sentences with Bitexts *May 2020 - May 2021*
Advisors: Wei Xu, Chris Callison-Burch
- Curated a multilingual Split and Rephrase corpus using machine translation over parallel corpora. Developed a sentence splitter with controllable generation and performed evaluations. Collaborated with Georgia Tech.
- Work published in EMNLP 2021 [2]

Automated Seizure Detection with Deep Learning *Jun 2019 - Apr 2020*
Advisors: Brian Litt
- Developed a seizure detection codebase which used neural networks with associated full-stack web application.
- Work published in Critical Care Explorations

PUBLICATIONS / PRE-PRINTS

[1] Induce, Edit, Retrieve: Language Grounded Multimodal Schema for Instructional Video Retrieval
Yue Yang, **Joongwon Kim**, Artemis Panagopoulou, Mark Yatskar, Chris Callison-Burch
- Under review in CVPR 2022
- Links: [paper]

[2] BiSECT: Learning to Split and Rephrase Sentences with Bitexts
Joongwon Kim*, Mounica Maddela*, Reno Kriz, Wei Xu, Chris Callison-Burch
- Proceedings of EMNLP 2021 (long paper)
- Links: [paper] [video] [poster] [slides]

Another paper not related to NLP can be found in my Google Scholar page.

SENIOR THESIS

Towards Practical Conversational Open-Domain Question Answering
Senior Capstone Thesis for Computer Science at the University of Pennsylvania (CIS 498)
- Provided literature review of conversational QA and open-domain QA
- Generated simulated QA dialogues from existing datasets (e.g. Natural Questions) using People-Also-Ask
- Performed experiments with fine-tuning QA models on the custom dataset

TEACHING

Computational Linguistics (CIS 530) *Jan 2021 - May 2021*
Teaching Assistant
- Helped to teach a graduate-level NLP class of 150 students by managing office hours and Piazza forum.
- Worked under Professor Mark Yatskar

Data Structures & Algorithms (CIS 121) *Jan 2020 - Dec 2020*
Teaching Assistant
- Led weekly office hours and recitations of 20-30 students on fundamental algorithms/data structure concepts.
- Worked under Professors Rajiv Gandhi and Kostas Daniilidis

SKILLS

Languages:	English, Korean (native fluency)
Programming:	Python, Java, C, C++, SQL, Javascript, HTML, CSS, MATLAB
Research:	Mechanical Turk, Latex, Command Line

REFERENCES

Professor Chris Callison-Burch *University of Pennsylvania*
- ccb@seas.upenn.edu

Professor Mark Yatskar *University of Pennsylvania*
- myatskar@seas.upenn.edu

Professor Wei Xu *Georgia Institute of Technology*
- wei.xu@cc.gatech.edu