Woo Seong Yang

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REASEARCH INTERESTS

Natural Language Processing, Recommender systems, Knowledge-based systems
- Developing algorithms that extract valuable information and knowledge from real-world data.
- Developing systems that solve real-world problems.

EDUCATION

M.S., Computer Science — Sep. 2021 – Present
The University of Texas at Dallas (UTD) / Richardson, Texas, United States
- Master of Thesis (Advisor: Prof. Latifur Khan)

M.S., Industrial Engineering — Mar. 2019 – Feb. 2021
Sungkyunkwan University (SKKU) / Seoul, South Korea
- Thesis:
  "Source Domain Identification and Cross-domain Knowledge Transfer Method to Alleviate Data Sparsity Problem in Session-based Recommender Systems"
  - Member of Intelligent Web Technology Laboratory (Advisor: Prof. Mye Sohn)
  - Main research domain: Recommender Systems

IITP Executive Education Course., Computer Science — Jan. 2020 – Jul. 2020
Carnegie Mellon University (CMU), LTI / Pittsburgh, Pennsylvania, United States
- Intensive Program in Artificial Intelligence (Director: Prof. Jaime Callan)
- Fully funded by Korean Government (IITP)

B.S., Systems Management Engineering — Mar. 2013 – Feb. 2019
Sungkyunkwan University (SKKU) / Seoul, South Korea

PUBLICATION

"Homogeneous Ensemble Instance Intervals Determination Method of Time Series Data Based on Granular Computing", Jaewoong Kang, **Wooeong Yang** and Mye Sohn, International Journal of Machine Learning and Computing", 10.6, 2020 (Second author)

DOMESTIC PRESENTATION

"Solving the cold-start problem in session-based recommender systems exploiting cross-domain knowledge", **Wooseong Yang**, Haein Lee and Mye Sohn, Korea Management Engineers Society, 2020. (Presenter)

"Context-aware hashtag recommendation in image-centric SNS", **Wooseong Yang**, Jongmo Kim and Mye Sohn, Korea Management Engineers Society, 2019. (Presenter)

"A study on the construction of digital twin applications based on worker motion data", Youngwook Nam, **Wooseong Yang**, Kyoham Shin, Dong-Hyuk Yang, Future Factory Conference, 2019. (Presenter)

PROJECTS

"Elements: Data: Sustaining Modern Infrastructure For Political and Social Event Data", National Science Foundation (NSF) (Part-time researcher) — Jul. 2022 - Present
- Conducting research on building domain-specific multi-lingual language model (BERT).
- Participating in data crawling, training language model and conducting model-evaluating downstream tasks.

"Development of e-CPS(Cyber-Physical System) platform for solving social and psychological alienation problems of elderly people based on machine learning and Internet Of Things (IOT)", National Research Foundation of Korea (NRF) (Full-time researcher) Mar.2019 - Dec. 2019, Aug. 2020 - Jan. 2021

- Conducted research on the context-aware hashtag recommendation in image-centric SNS.
- Conducted research on interval determination method of time series data based on granular computing.

"Ontology model development and information management technique research for collaborative information management", Agency for Defense Development (ADD) (Full-time researcher) Mar. 2019 - Dec. 2019

- Participated in constructing domain ontology that is needed to fuse information occurred from different battlefield.
- Participated in developing prototype of tactic repository that shows the process of information extraction and information fusion using domain ontology.

AWARDS & SCHOLARSHIPS

IITP EXECUTIVE EDUCATION COURSE IN CARNEGIE MELLON UNIVERSITY Jan. 2020 - Jul. 2020
Institute of Information & communications Technology Planning & Evaluation (IITP)

- Studied in Carnegie Mellon University supported by IITP grant funded by Korean government (Ministry of Science and ICT)

KOREA INDUSTRY INTELLIGENTIZATION ASSOCIATION AWARD Dec. 2019
Future Factory Conference organized by Korean Ministry of Trade, Industry and Energy

- Constructed a digital twin based on cyber physical system technology using worker motion data, designed an application that supports decision-making and applied through comparative analysis of factory design plans including human-machine collaboration processes.

VMS SOLUTIONS SCHOLARSHIP 2019
VMS Solutions Co. Ltd.

- Selected as a scholarship student due to excellent academic performance and excellent research quality.

EXPERIENCES

Universal User Experience Design Lab (U2X Design Lab) Suwon, South Korea
(Research Intern) Jan. 2019 – Jun. 2019

- Performed as research internship at U2X Design Lab in Sungkyunkwan University that mainly focuses on Human Computer Interaction (HCI) research.
- Studied HCI papers and conducted project on cognitive engineering using Arduino kit.

Mycelebs, Inc Seoul, South Korea
(Intern) Summer 2016

- Performed an internship at Mycelebs that is artificial intelligence (AI) start-up based on recommender systems.
- Collected data from web environment and preprocessed for the learning of the systems.

SKILLS

Computer Programming

- Python (Pytorch, Tensorflow); C/C++

English Proficiency

- IBT TOEFL: Reading (29), Listening (28), Speaking (22), Writing (21)