Soyoung **Oh**

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Interests

ARTIFICIAL INTELLIGENCE   ·   COGNITIVE SCIENCE   ·   NLP

My research broadly lies in the areas of human-centered computing. Specifically, I would like to advance the explainability of human behaviors by employing AI models, especially language processing.

Education

École polytechnique fédérale de Lausanne (EPFL)   *Lausanne, Switzerland*

PHD IN COMPUTER AND COMMUNICATION SCIENCES (EDIC)   *Sep. 2022 -*

- First project Advisor: Antoine Bosselut @ EPFL & Lonneke van der Plas @ IDIAP
- Second project Advisor: Frederic Kaplan & Maud Ehrmann & Boros Emanuela @ EPFL

Sungkyunkwan University (SKKU)   *Seoul, South Korea*

M.S. IN APPLIED ARTIFICIAL INTELLIGENCE   *Aug. 2020 - Feb. 2022*

- Advisor: Eunil Park
- Master's Thesis: Understanding Difficulties of Content Filterings and Humans' Cognitive Bias in Algorithmic Recommendations

Sungkyunkwan University   *Seoul, South Korea*

B.A. IN PSYCHOLOGY

B.S. IN ENGINEERING, INTERDISCIPLINARY PROGRAM OF CONVERGENT SOFTWARE - SAMSUNG CONVERGENCE SOFTWARE COURSE   *Mar. 2016 - Aug. 2020*

Research Experience

Researcher   *European Cooperation in Science & Technology*

MULTIPLEYE   *Sep. 2022 - Current*

- Collaborating with the researchers in the project, main researcher as Nora Hollenstein, (Group leader) Jamal Nasir.
- Leading survey paper for using eye-tracking dataset to improve performance/explainability of NLP techniques.
- Revising the code for pre-processing eye-tracking dataset.

Research Assistant   *EPFL*

DIGITAL HUMANITIES LAB   *Apr. 2023 - Aug. 2023 (Expected)*

- Advisor: Frederic Kaplan & Maud Ehrmann & Boros Emanuela
- Fine-tuning adapter module with low-resource historical dataset to deploy knowledge from large language model (LLaMA).

Research Assistant   *EPFL*

NLP LAB   *Sep. 2022 - Feb. 2023*

- Advisor: Antoine Bosselut & Lonneke van der Plas
- Conducted prompt tuning to implement chain-of-thought prompt for measuring creativity ability of large language models.
- Constructed Linux environment for large language model (e.g., OPT175B, BLOOM175B) in EPFL cluster.
- Conducted data analysis for newly constructed persona dialogue dataset (Accepted in ACL'23).

Research Intern   *Georgia Institute of Technology (Remote)*

CLAWS LAB   *Jul. 2021 - Apr. 2022*

- Advisor: Srijan Kumar
- Engaged in survey paper on analyzing the countering misinformation efforts of the crowds.
- Devised natural language processing method to debunk misinformation based on individual features of the crowds.

Undergraduate Research Assistant   *SKKU*

DATA EXPERIENCE LAB   *Jul. 2019 - Aug. 2020*

- Advisor: Eunil Park
- Explored user experience of augmented reality and virtual reality products (Funded by NRF of Korea)
- Developed a Deep Learning Model for Predicting Service Reuse (Funded by the NRF of Korea)

Publication

c4 Silin Gao, Beatriz Borges[1], **Soyoung Oh**[1], Deniz Bayzit[1], Saya Kanno, Hiromi Wakaki, Yuki Mitsufuji, & Antoine Bosselut (2023).
PeaCoK: Persona Commonsense Knowledge for Consistent and Engaging Narratives. ACL 2023. [PDF]

c3 **Soyoung Oh**, & Eunil Park (2022).
Are you aware of what you are watching? Role of machine heuristic in online content recommendations. ICWSM 2022 Workshop on Cyber Social Threats (CySoc 2022). [PDF]

c2 Sangeun Lee[1], **Soyoung Oh**[1], Minji Kim, & Eunil Park (2022).
Measuring Embedded Human-like Bias in Face Recognition Models. AAAI 2022 Workshop on Artificial Intelligence with Biased or Scarce Data (AIBSD 2022). [PDF]

c1 **Soyoung Oh**[1], Jisu Kim[1], Seungpeel Lee.[1], & Eunil Park (2021).
Jujeop: Korean Puns for K-pop Stars on Social Media. In Proceedings of the Ninth International Workshop on Natural Language Processing for Social Media 2021, NAACL HLT'21 Workshop. [PDF]

j7 Dahye Jeong[1], **Soyoung Oh**[1], & Eunil Park (2022).
DemoHash: Hashtag Recommendation based on User Demographic Information. Expert Systems With Applications. [HTML]

j6 **Soyoung Oh**, Honggeun Ji, Jina Kim, & Eunil Park (2022).
Deep learning model based on expectation confirmation theory to predict customer satisfaction in hospitality service. Information Technology & Tourism. [HTML]

j5 Honggeun Ji, **Soyoung Oh**, Jina Kim, & Eunil Park (2022).
Integrating Deep Learning and Machine Translation for Understanding Unrefined Languages. CMC-Computers, Materials & Continua, 70(1), 669–678. [HTML]

j4 Jina Kim, Honggeun Ji, **Soyoung Oh**, Syjung Hwang, Eunil Park, & del Pobil, A. P. (2021).
A deep hybrid learning model for customer repurchase behavior. Journal of Retailing and Consumer Services (SSCI, JCR 2019 IF=4.219, Q2 in Business). [HTML]

j3 Jina Kim, Yeonju Jang, Kunwoo Bae, **Soyoung Oh**, Namjeong Jeong, Eunil Park, & del Pobil, A. P. (2021).
Between comments and repeat visit: capturing repeat visitors with a hybrid approach. Data Technologies and Applications. [HTML]

j2 **Soyoung Oh**, Jina Kim, Honggeun Ji, Eunil Park, Jinyoung Han, Minsam Ko, & Moonyoung Lee (2020).
Cross-cultural Comparison of Interactive Streaming Services: Evidence from Twitch. Telematics and Informatics, ISSN: 0736-5853 (SSCI, JCR 2019 IF=4.139, Q1 in Information Science & Library Science). [HTML]

j1 Jina Kim, Soyeon Shin, Kunwoo Bae, **Soyoung Oh**, Eunil Park, & del Pobil, A. P. (2020).
Can AI be a content creator? Effects of content creators and information delivery methods on the psychology of content consumers. Telematics and Informatics, ISSN: 0736-5853 (SSCI, JCR 2019 IF=4.139, Q1 in Information Science & Library Science). [HTML]

Teaching Experience

Teaching Assistant   *EPFL*
CS486, INTERACTION DESIGN   *Spring semester, 2023*
- Assisted making and grading assignments in the field of HCI.

Teaching Assistant   *SKKU*
AAI3020, DEPT. OF APPLIED ARTIFICIAL INTELLIGENCE AT UNDERGRADUATE COURSE   *Fall semester, 2020*
- Led research project with undergraduate students and successfully submitted paper to conference [c2]

Instruction Assistant   *KINTEX, South Korea*
IOT MAKER BOOTH @ E2FESTA2018   *Sept. 2018*
- Assisted making IoT lamp with Arduino

Work Experience

Silikal Korea Construction Chemicals Co., Ltd.   *Seoul, South Korea*
INTERN   *May 2018 - Jul. 2018*
- Done internship program with logistics, sales, and accounting.

Silikal GmbH   *Mainhausen, Germany*
INTERN   *Feb. 2018 - Apr. 2018*
- Done internship program at sales & sales support in Export, Import division.

Honors & Awards

2022	**Attendance Scholarship**, ICWSM-2022 Grant Program	*ICWSM*
2022	**EDIC PhD Fellowship**, A one-year fellowship	*EPFL*
2021	**Attendance Scholarship**, ICWSM-2021 Grant Program	*ICWSM*
2020	**Bachelor's Degree Linked Master Program Scholarship**, Full tuition of last semester of undergraduate	*SKKU*
2019	**Travel Scholarship**, Language Exchange student @ Okayama University	*Campus Asia*
2019	**Academic Excellence Scholarship**, 70% of tuition from Dept. of Social Science (GPA:4.4/4.5)	*SKKU*

Academic Services

2022	**Student Volunteer**, ICWSM'22 Virtual Conference	*ICWSM*
2022	**Student Volunteer**, FAccT'22 On-Site Conference	*FAccT*
2022	**Reviewer**, Reviewed papers @ *alt.chi* track	*CHI*
2021	**Student Volunteer**, NAACL HLT'21 Virtual Conference	*NAACL*

Skills

Programming	Python, SPSS, LaTeX, JAVA, C
Machine Learning	Tensorflow, Keras, Pytorch
Front-end	HTML, CSS, Node.js
User Research	Interviewing, Conducting surveys, Experimental Design
Languages	Korean, English, Japanese

References

Eunil Park	eunilpark@skku.edu, Assistant Professor @ Sungkyunkwan University
Antoine Bosselut	antoine.bosselut@epfl.ch, Tenure Track Assistant Professor @ EPFL
Lonneke van der Plas	lonneke.vanderplas@idiap.ch, Professor @ IDIAP