

Michelle YoungJin Kim

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EDUCATION

Michigan State University, East Lansing, MI, USA Sep. 2020 - May 2025
Ph.D in Computer Science and Engineering

Seoul National University, Seoul, South Korea Sep. 2017 - Jan. 2019
Completed 20 credits of M.S./Ph.D coursework in Computer Science and Engineering

Yonsei University, Seoul, South Korea Mar. 2015 - Aug. 2017
B.S. in Computer Science

University of Pennsylvania, Philadelphia, PA, USA Sep. 2009 - May 2013
Completed 74 credits towards B.A. in Mathematics and transferred to Yonsei University

TEACHING EXPERIENCE

Teaching Assistant, Introduction to Machine Learning Fall 2023 - Spring 2024
Department of Computer Science and Engineering, Michigan State University

- Enhanced course curriculum by developing cutting-edge course materials that align with the rapid advancements of artificial intelligence (AI) and machine learning
- Leveraged breakout rooms to enhance office hours into focused, small-group discussions for addressing individual questions
- Developed guidelines for the use of AI tools, such as ChatGPT, in assignments

Teaching Assistant, Introduction to Data Mining Spring 2018
Department of Computer Science and Engineering, Seoul National University

- Provided individualized support during office hours, clarifying complex concepts and guiding students through homework and lecture materials
- Contributed to the development of assignments and tests for the course

Teaching Assistant, After-School Computer Science Program Summer 2014
Geumok Elementary School

- Engaged students in programming exploration using Scratch, building confidence and excitement through a game-creation project that brought coding concepts to life
- Fostered STEM interest and engagement in young learners through mentorship

English Tutor, Voluntary Program Spring 2006 - Fall 2007
Domestic Violence Shelter in Seoul, South Korea

- Mentored for underprivileged students, advancing educational equity and providing critical support, and taught English to help students achieve a high score on TOEIC

RESEARCH EXPERIENCE

Doctoral Reseracher

Sep. 2020 - Present

Department of Computer Science and Engineering, Michigan State University

- Leveraged natural language processing (NLP) to promote fairness and equity in artificial intelligence (AI) and society
- Identified and mitigated biases and stereotypes in large language models (LLMs), healthcare, and political framing in news media

Intern Reseracher

May. 2021 - Aug. 2022

MedKit Korea

- Investigated societal biases and stereotypes experienced by individuals with Autism Spectrum Disorder
- Explored the use of language models to create game scenarios that incorporate educational content and emotional intelligence

Intern Reseracher

Sep. 2017 - Jan. 2019

Department of Computer Science and Engineering, Seoul National University

- Collaborated with Samsung Electronics to create energy-efficient technologies that predict human indoor activities

ACADEMIC SERVICE

GSMD Co-Chair, GWIS Mid-Michigan

Sep. 2024 - May. 2025

Graduate Women In Science (GWIS) Mid-Michigan, Michigan State University

- Recruited presenters and volunteers for Girls Math & Science Day (GMSD) to promote excellence in STEM and encourage the full participation of women
- Executed logistics for GMSD and secured necessary funding to support STEM education for girls, achieving equity

Fellow, Engineering Graduate Leadership Fellow

Jan. 2023 - Dec. 2024

College of Engineering, Michigan State University

- Organized Graduate Women Lunches to foster community and professional development
- Organized social events for students' well-being such as Bagels Before Break
- Fostered a vibrant research community through the organization of the Engineering Graduate Research Symposium

FELLOWSHIPS & GRANTS

Michigan State University Enrichment Fellowship

2020-2021, 2024-2025

Michigan State University The College of Social Science Small Grant

2024

Samsung Lee Kun-Hee Scholarship

2008

PUBLICATIONS

1. **Michelle YoungJin Kim***, Junghwan Kim*, Kristen Johnson “ABLE: Agency-BeLiefs Embedding to Address Stereotypical Bias through Awareness instead of Obliviousness,” The 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024)
2. **Michelle YoungJin Kim**, Junghwan Kim, Kristen Johnson, “Race, Gender, and Age Biases in Biomedical Masked Language Models,” The 61st Annual Meeting of the Association for Computational Linguistics (ACL 2023)
3. Junghwan Kim, **Michelle YoungJin Kim**, Barzan Mozafari, “Provable Memorization Capacity of Transformers,” The Eleventh International Conference on Learning Representations (ICLR 2023)
4. **Michelle YoungJin Kim**, Junghwan Kim, Bryan Woosung Kim, Kristen Johnson, Jee-In Kim, “AsdClaims: Twitter Dataset of Claims on Autism Spectrum Disorder,” 1st International Workshop on Big Data Analytics for Health and Medicine (IEEE 2022)
5. **Michelle YoungJin Kim**, Kristen Johnson, “CLoSE: Contrastive Learning of Subframe Embeddings for Political Bias Classification of News Media,” The 29th International Conference on Computational Linguistics (COLING 2022)
6. Woojeong Jin, Dongjin Choi, **Youngjin Kim**, and U Kang, “Activity Prediction from Sensor Data using Convolutional Neural Networks and an Efficient Compression Method,” Journal of KIISE (KIISE 2018)

PRESENTATIONS

1. **Michelle YoungJin Kim**, “Let’s teach ChatGPT stereotypes to make it less biased,” The 3rd Edition of Ignite Talks MSU (Ignite Talks 2024)
2. **Michelle YoungJin Kim***, Junghwan Kim*, Kristen Johnson “ABLE: Agency-BeLiefs Embedding to Address Stereotypical Bias through Awareness instead of Obliviousness,” The 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024)
3. **Michelle YoungJin Kim***, Junghwan Kim*, Kristen Johnson “ABLE: Agency-BeLiefs Embedding to Address Stereotypical Bias through Awareness instead of Obliviousness,” Midwest Speech and Language Day (MSLD 2024)
4. **Michelle YoungJin Kim***, Junghwan Kim*, Kristen Johnson “ABLE: Agency-BeLiefs Embedding to Address Stereotypical Bias through Awareness instead of Obliviousness,” Michigan State University The 2024 Engineering Graduate Research Symposium (MSU EGRS 2024)
5. **Michelle YoungJin Kim**, Junghwan Kim, Kristen Johnson, “Race, Gender, and Age Biases in Biomedical Masked Language Models,” The 61st Annual Meeting of the Association for Computational Linguistics (ACL 2023)

6. **Michelle YoungJin Kim**, Junghwan Kim, Bryan Woosung Kim, Kristen Johnson, Jee-In Kim, “AsdClaims: Twitter Dataset of Claims on Autism Spectrum Disorder,” 1st International Workshop on Big Data Analytics for Health and Medicine (IEEE 2022)
7. **Michelle YoungJin Kim**, Kristen Johnson, “CLoSE: Contrastive Learning of Sub-frame Embeddings for Political Bias Classification of News Media,” Michigan State University The 2023 Engineering Graduate Research Symposium (MSU EGRS 2023)
8. **Michelle YoungJin Kim**, Kristen Johnson, “CLoSE: Contrastive Learning of Sub-frame Embeddings for Political Bias Classification of News Media,” The 29th International Conference on Computational Linguistics (COLING 2022)

PROJECTS

Legal Judgement Prediction

Aug. 2020 - Dec. 2020

Michigan State University Course Project

East Lansing, MI, USA

- Proposed a novel perspective of utilizing summarization as a pre-processing step for legal judgment prediction
- Studied the taxonomy of legal cases and collected data for legal text summarization and judgment prediction

Building Lidar-Based Human Detection Technology

May 2018 - Sep. 2018

Samsung Electronics Co., Ltd.

Seoul, South Korea

- Developed an optimal layout for installing Lidar sensors to collect foot traffic data throughout a large mall area.

Building Energy Optimization Technology

Sep. 2017 - Apr. 2018

Samsung Electronics Co., Ltd.

Seoul, South Korea

- Developed a model for predicting human indoor activities, which resulted in one published paper and one patent
- Experimented with multimodal data: video for motion detection and sensor for temperature and sound detection
- Managed the model repository and the website that displayed real-time predictions of the lab space activity

Parallelization of Laminar-IR

Sep. 2016 - May 2017

Capstone project at Yonsei University

Seoul, South Korea

- Implemented unfolding of stream graphs onto multicore platforms, using double buffering technique and barriers for synchronization

Recommendation System for the Best-Fit Keyboard

Sep. 2016 - Dec. 2016

Class project at Yonsei University

Seoul, South Korea

- Implemented a recommendation system for a mobile keyboard layout that analyzes a user’s typing pattern using the log file dataset collected during the experiment

WORK EXPERIENCE

MedKit Korea

May - Aug. 2021, May - Aug. 2022

Intern

Seoul, South Korea

- Led the collection of social media data on Autism Spectrum Disorder (ASD) via keyword search, curated dataset through filtering and labeling, and published results at IEEE BDA4HM Workshop
- Generated scenarios using language generation models for a digital therapy game, which was deployed in the app
- Collaborated with medical professionals to build a fact-checking model on ASD using machine learning algorithms

ADDITIONAL EXPERIENCE

Volunteer for the ACL 2023 Conference

2023

The Computing Research Association's Committee on Widening Participation
in Computing Research (CRA-WP) Grad Cohort for Women

2022

PROFESSIONAL SOCIETIES

Graduate Women In Science

2024 - Present

Association for Women In Science

2022 - 2024

Association for Computing Machinery

2022 - 2023

TECHNICAL STRENGTHS

Programming Languages

Python, C++, C, Java

Libraries

PyTorch, TensorFlow, NumPy, SciPy, Pandas

LANGUAGE SKILLS

Advanced

Korean, English

Beginner

Spanish