Kevin Lee

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EDUCATION

Purdue University, College of Science
Master of Science in Computer Science West Lafayette, IN

Ohio State University, College of Engineering

Bachelor of Science in Computer Science and Engineering

Aug. 2014 - May 2020 Columbus, OH

Aug. 2020 - May 2023

West Lafayette, IN

PROFESSIONAL EXPERIENCE

Purdue University Department of Computer Science

Graduate Teaching Assistant

- Assisted professor in a Software Development in C class with over 400 students.
- Collaborated with the instructional team to design homework and exam problems, ensuring alignment with course objectives and enhancing student learning outcomes.
- Conducted lab sessions, office hours, and virtual help sessions to provide personalized support and guidance to students, fostering a conducive learning environment.
- Received positive feedback from students for approachability, assistance, and dedication to their learning experience.

The Ohio State University, Wexner Medical Center Department of Obstetrics and Gynecology

May 2019 - May 2020 Columbus, OH

Student Research Assistant

- Contributed to Virtual Patient research, aimed at enhancing medical students' training for doctor-to-patient conversations.
- Updated and maintained Speech to Text and Text to Speech components using Unity, C#, and Java, enhancing the functionality and usability of the software.
- Collaborated with professionals from diverse backgrounds in the medical and natural language processing field, gaining interdisciplinary teamwork skill and research experience.

The Ohio State University Department of Computer Science and Engineering

Jan. 2019 - May 2019

Columbus, OH

Undergraduate Teaching Assistant

- Supported professor in a Software Development Java class with 42 students.
- Provided explanations to students during office hours and closed lab sessions.
- Successfully managed grading of projects and homework while balancing student workload and teaching responsibilities.

PUBLICATIONS

Artificial intelligence in virtual standardized patients: Combining natural language understanding and rule based dialogue management to improve conversational fidelity.

Maicher, K. R., Stiff, A., Scholl, M., White, M., Fosler-Lussier, E., Schuler, W., <u>Lee, K.</u>, & Danforth, D. R. et al. (2022). Medical teacher, 1–7. Advance online publication.

https://doi.org/10.1080/0142159X.2022.2130216

PROJECTS

Virtual Patient Project

May 2019 - May 2020

Participated in Virtual Patient research, helping OSU medical students to train for doctor-to-patient conversations. The program was built using Unity 3D, Speech to Text, Neural Networks (CNN, RNN), and Text to Speech. Updated and maintained Speech to Text and Text to Speech components of Virtual Patient applications using Unity, C#, and Java.

https://accad.osu.edu/research-gallery/virtual-patient-project

Backdoor Attack on Language Model Code Generators

Feb. 2023 - May 2023

Participated in a project, which aimed to investigate whether inserting trigger words into these models could lead to the generation of malicious code, potentially resulting in a backdoor attack on the user's computer. Performed writing web scraping code, collecting train set data for GPT-2 code generator model, and implemented trigger insertion code using Python.

https://github.com/kevindclee/Backdoor-Attack-on-Language-Model-Code-Generators

INVOLVEMENT

Google, Machine Learning Bootcamp

Seoul, South Korea / Sep. 2023 - Dec. 2023

- Acquired skills in deep learning, computer vision, and natural language processing.
- Gained knowledge of TensorFlow and completed Kaggle competition with top 7%.
- Gained hands-on experience in ResNets, MobileNet, YOLO, U-Net, and Transformer Network.

En-core, Playdata Bootcamp

Seoul, South Korea / May 2022 - Dec. 2022

- Acquired comprehensive skills in front end and back end development, as well as artificial intelligence applications, during enrollment in the Playdata Bootcamp at En-core.
- Demonstrated proficiency in a range of technologies including JavaScript, React, Next.js, Spring Boot, MySQL, and Python, expanding technical expertise and versatility.
- Developed strong leadership skills through team leadership and project presentations, enhancing collaboration and communication abilities in technical environments.

QUALIFICATIONS & SKILLS

- Proficient with frontend frameworks like React, Material UI, Tailwind CSS, backend frameworks including Node.js and Java (with Spring and SpringBoot), AI/ML frameworks such as Python (PyTorch, TensorFlow, scikit-learn, Numpy, Pandas, Keras), and databases like MySQL and Neo4j. Also, experienced with cloud platforms such as Google Cloud Platform and Microsoft Azure.
- Bilingual: Korean (fluent), English (fluent), Japanese (intermediate)