

Jehyeok Yeon

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Education

University of Illinois Urbana-Champaign

Champaign, IL

Bachelor of Sciences in Computer Science + Linguistics. GPA 3.94.

- Relevant Coursework: Data Structures, Algorithms, Database Systems, Computer Systems, Computational Linguistics, Digital Signal Processing, Corpus Linguistics
- President, Codable Student Organization: Led a team of over 40 students to organize coding workshops and events along with running semester-long projects, fostering student engagement across different skill levels.

Relevant Experience

Hanwha Life Insurance

June 2024 – August 2024

AI Data Scientist

- Used Elasticsearch, Langchain, LlamaIndex, and streamlit to develop an fullstack application specializing in the insurance domain utilizing a hybrid retriever; improved upon standard models by 4.27 times.
- Implemented advanced RAG strategies such as reranking, query defragmentation, and HyDE to optimize the indexing and retrieving of both structured and unstructured multimodal data and documents.

ATLAS

May 2023 – August 2024

Machine Learning Intern

- Used PyTorch and scikit-learn to train a predictive machine learning model for identification of trends and patterns in Chicago weather sensor data.
- Led research with a postdoctoral Agriculture scholar to train a machine learning model to analyze and identify the impact of different temporal conditions to wheat yield using live agriculture data from Canada.

Political Ideology and Entrepreneurship Lab

December 2023 – May 2024

Computational Research Assistant

- Engineered automated Python tools for collecting, quantifying, and analyzing data related to political ideology of CEOs and their respective earnings reports.

Projects

ClassTranscribe

August 2024 – Current

- Used React, Python, and Docker to develop accessibility features for ClassTranscribe, enabling transcript editing and chapter break insertion for low-vision users.
- Implemented full-stack solutions to transform lecture videos into accessible, picture book-style content, enhancing user experience for visually impaired students.

ESL Learning Hub Web App

May 2023 – August 2024

- Used Flask, HTML, CSS, and Javascript to develop a website to enhance the reading comprehension and grammar proficiency of ESL students in a personalized way.
- Integrated NLP methods along with a LLM pipeline integration to generate diverse and contextually relevant quizzes and exercises based on reading passages suitable for ESL learners at different proficiency levels.

Note Generation Chrome Extension

August 2023 – December 2023

- Used Flask, HTML, and Javascript to develop a Chrome extension integrating an open-source LLM Mixtral and OpenAI's speech-to-text model wav2vec 2.0.
- Automated note generation from YouTube videos, video files, and audio files for enhanced productivity.

Chopstick 101

August 2022 – May 2023

- Used Tensorflow and OpenCV to develop a machine learning program that analyzes and rates realtime chopstick holding positions applying LSTM on the hand landmark positions.

Technical Skills

- Languages: Python, C++, SQL, Java, HTML/CSS/Javascript
- Frameworks and Tools: React, LangChain, Elasticsearch, PyTorch, OpenCV, Tensorflow, Flask, Django, Git, Docker