Jun Cha

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Education

University of Wisconsin - Madison, College of Letters and Science **Madison, WI**
B.S. Computer Science and Data Science *Exp. May 2024*
GPA 3.66

- **Relevant Coursework:** Directed Studies in DCAI, Operating Systems (C), Intro to Artificial Intelligence (Python), Algorithms, Matrix Method in ML, Object-Oriented Programming (Java), Discrete Mathematics
- **Awards/Recognition:** Dean's List (2020,2021)

Professional Projects

Patient Portal Enhancement Development, Epic Systems **Madison, WI | Sep 2023 – Dec 2023**

- Engineered a GPT-API enhanced backend for a healthcare website and Chrome extension, introducing multilingual support and medical term simplification to improve patient comprehension
- Led demo tests with Epic's patient doctor's notes, providing simplified summarizations and functional Q&A features to enhance patient-doctor communication
- Utilized Agile and Google sprints for full-stack development with React, JavaScript, HTML, CSS, and Python, ensuring functionality and data security, including secure PDF extraction to protect sensitive information

Directed Study in Data-Centric AI, Prof. Kangwook Lee **UW-Madison | Sep 2023 – Dec 2023**

- Pioneered a study under Prof. Kangwook Lee, shifting to data-centric AI principles to enhance real-world AI application effectiveness
- Implemented data-centric AI techniques to boost model accuracy and efficiency, focusing on label issue resolution using techniques such as Confident Learning
- Explored advanced data-centric AI strategies, contributing to robust AI solutions through crowdsourcing algorithms like CROWDLAB and Dawid-Skene

Personal Projects

Café Data Crawler

- Collaborated with 3 peers to design and implement an automated system using the Selenium Python API, analyzing and organizing quantitative statistics for over 9,500 coffee shops in Seoul
- Identified common success factors for businesses in the coffee industry, providing valuable insights for both emerging and struggling businesses

LeNet-5 Implementation with PyTorch

- Developed a LeNet-5 neural network model, training on MIT's MiniPlaces dataset with 120k images
- Utilized PyTorch Profiling Tools to optimize model efficiency and experimented with various training configurations for improved accuracy

Distributed File System

- Created a distributed idempotency file system server using UDP, utilizing a file system image to store and access data. Maintained in-memory versions of the file system data structures for performance.
- Built a client library enabling UDP-based access to the file server, implementing functions for file and directory operations, such as reading, writing, and deleting

Skills

Programming Languages: Python, Java, C, C++, R, HTML, CSS, JavaScript
Technical Skills: Data Analysis, Neural Networks, PyTorch, TensorFlow, NumPy, SciPy, Distributed System, Data Visualization, Data Structures and Algorithms, Object-Oriented Programming, Jupyter, Git/GitHub, Linux