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   *Expected May 2024*
GPA 3.65/4.00

Awards and Recognition: UW-Madison Dean's List (2020,2021), IB Diploma Recipient

Skills

Programming Languages: Python, Java, C, C++, R, HTML, CSS, JavaScript
Coursework: Operating Systems (C), Artificial Intelligence (Python), Algorithms, Matrix Method in ML
Skills: Natural Language Processing, Data Analysis, Machine Learning, Neural Networks, PyTorch, TensorFlow, NumPy, SciPy, Distributed System, Data Visualization, Data Structures and Algorithms, Object-Orientated Programming, Jupyter

Professional Projects

AI-driven Patient Protal Enhancement with Epic   **Madison, WI | Sep 2023 - Present**
- Developing a web plugin powered by AI to simplify complex health information for patients using patient portals
- Utilizing JavaScript and TypeScript, integrated with an AI model, and conducting tests within Epic's MyChart patient portal

Directed Study in Neural Networks with Prof. Lee   **Madison, WI | Sep 2023 – Present**
- Analyzing neural networks with an emphasis on large language models, architectures, and training techniques
- Investigated Llama-2's optimized pre-training, hyperparameters, and fine-tuning strategies, such as SFT and RLHF

Personal Projects

Café Data Crawler   **Summer, 2021**
- Collaborated with engineers to design and implement an automated system using the Selenium Python API, analyzing and organizing quantitative statistics for over 1,000 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   **Spring, 2022**
- 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   **Fall, 2022**
- 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 performances.
- Built a client livrary enabling UDP-based access to the file server, implementing functions for file and directory operations, such as reading, writing, and deleting

Personal Website: junhyeokcha.com   **Spring, 2023**
- Programmed a personal website with HTML, CSS, and JavaScript

Relevant Experience

Math and English Tutor   **Goyang-si, Korea | May 2019 - Present**
- Engaged students in a competitive learning environment to strengthen their skills
- Created a learning structure to teach students more effectively way, focusing on captivating their interests
- Merged English and Math to create a more efficient learning environment for students