Chaehyeon Kim

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EDUCATION

CASE WESTERN RESERVE UNIVERSITY   Cleveland, OH
Bachelor of Arts in Computer Science and Music; Minor in Mathematics   Expected May 2025
Cumulative GPA: 3.94/4.0; Dean's High Honors List
Coursework: Data Structures | Algorithms | Programming Language Concepts | Artificial Intelligence (AI) | Machine Learning (ML)

SKILLS

Programming Languages: Python | Java | SQL | JavaScript | HTML/CSS | C/C++ | C# | Racket | Haskell | Prolog
Technical Skills: React | Databases | APIs | Git | Linux/Unix | Windows OS | Unity | Data Science | Object-Oriented Programming

WORK EXPERIENCES

Carnegie Mellon University   Pittsburgh, PA
RESEARCH INTERN   May 2024 – Dec 2024
- Implemented a multimodal model to evaluate user interfaces (UIs) and produced a demo front-end application for users.
- Automated the collection process of a large dataset of over 100,000 screenshots and generated a UI element filtering algorithm.

Case Western Reserve University   Cleveland, OH
UNDERGRAD RESEARCHER   Sep 2023 – May 2024
- Built ML regression models to predict students' engagement and performance levels from their textbook activities.
- Utilized data science techniques to efficiently structure and preprocess large time series datasets and evaluated various models.

Case Western Reserve University   Cleveland, OH
JUNIOR DEVELOPER   Aug 2022 – Dec 2023
- Collaborated in a small team to maintain and troubleshoot the school's website using front-end development tools.
- Designed and delivered weekly Drupal and website management training for Engineering faculty and staff.

University of Massachusetts Amherst   Amherst, MA
RESEARCH INTERN   Jun 2023 – Aug 2023
- Optimized a Neural Network model, achieving a 94.03% accuracy rate for real-time carbon intensity forecasts in 27 regions.
- Utilized Python's Pandas library for pre-processing time series data and generated data visualizations using Matplotlib.

PROJECTS

PERSONAL WEBSITE | React, Python, JavaScript, HTML/CSS, Git
- Developed a responsive portfolio website to showcase achievements and utilized full-stack development techniques.

AI AGENT HOSTILITY SIMULATOR *(ongoing)***| Python, Unity, TensorFlow, Git**
- Created a multi-agent simulation to study variations in AI hostility and violence influenced by resource availability.

LANGUAGE INTERPRETER | Programming Language Concepts, Racket, Functional & Object-Oriented Programming
- Developed a programming language interpreter in Racket for a made-up object-oriented language similar to Java and C.
- Tested the interpreter with over 100 test cases to ensure its workability across various edge cases and possible errors.

MARITIME AIS PREDICTOR | Python, Scikit-Learn, Pandas, NumPy, Matplotlib
- Conducted clustering analysis on Automatic Identification System (AIS) data from maritime vessels to predict vessel movements.
- Optimized clustering algorithms, performed feature selection, and pre-processed the datasets, achieving up to 90.8% accuracy.

PLATFORM ADVENTURE GAME | Unity, C#, Git/GitHub, Communication Skills, Teamwork
- Created a 2D platform game featuring a playable character navigating obstacles and tackling a final boss (5-minute gameplay).

ACTIVITIES

UNIVERSITY ORCHESTRA   Cleveland, OH
Section Leader (1st Flute)   Aug 2021 – May 2024

ADVOCATES FOR IMMIGRANTS & DIVERSITY   Cleveland, OH
Secretary (Executive Member)   May 2022 – Dec 2023