

# Chaehyeon Kim

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## SUMMARY

Recent graduate with a strong foundation in software development, data engineering, and AI/ML, **actively looking to transition from data-focused roles to software engineering**. Experienced in building full-stack applications and scalable data systems through past internships and projects.

## EDUCATION

### CASE WESTERN RESERVE UNIVERSITY

Bachelor of Arts in Computer Science and Music; Minor in Mathematics

Cumulative GPA: 3.94/4.0; *Magna Cum Laude*

Cleveland, OH

May 2025 Graduate

## WORK EXPERIENCES

### AI SOFTWARE ENGINEER INTERN

Carnegie Mellon University | Python, JavaScript, HTML/CSS, React, PyTorch, LLM, UI/UX, Linux

Pittsburgh, PA

May 2024 – Dec 2024

- Designed and developed a full-stack web application using React for the frontend and integrated machine learning capabilities on the backend to evaluate UI screenshots and provide automated design improvement suggestions.
- Built a responsive and user-friendly interface to streamline the user feedback loop and improve usability for non-technical users.
- Engineered a scalable web crawler to collect and preprocess 100,000+ UI screenshots with data filtering to ensure model quality.

### DATA SCIENTIST INTERN

Case Western Reserve University | Python, Scikit-Learn, Pandas, NumPy, Data Processing

Cleveland, OH

Sep 2023 – May 2024

- Built ML regression models to predict student performance and engagement, improving accuracy by 40% over baseline models.
- Utilized advanced data preprocessing techniques to enhance data quality and enabling efficient, scalable model training.
- Applied hyperparameter tuning and feature engineering to enhance model accuracy and reduce prediction error by 12%.

### SOFTWARE ENGINEER INTERN

Case Western Reserve University | Drupal, HTML/CSS, JavaScript

Cleveland, OH

Aug 2022 – Dec 2023

- Collaborated with a team to maintain school websites using front-end development tools, improving site reliability.
- Designed and delivered website management training for faculty, enhancing their ability to manage and update web pages.

### DATA ENGINEER INTERN

University of Massachusetts Amherst | Python, Git, Linux/Unix, Pandas, NumPy, Data Processing

Amherst, MA

Jun 2023 – Aug 2023

- Optimized a neural network model, achieving a 94% accuracy rate for real-time carbon intensity forecasts across 27 regions.
- Engineered efficient data preprocessing workflows, improving data quality and reducing preprocessing time by 28%.
- Focused on writing scalable, maintainable code and integrating ML components into a broader data processing pipeline.

## PROJECTS

### ROOMME | JavaScript, MongoDB, Express, React, NodeJS, Git/GitHub

- Created a MERN full-stack application that enables college students to find and manage co-living arrangements in dorms.
- Implemented real-time chat and user authentication and optimized database interactions using JWT and WebSocket.
- Enhanced UI/UX features like calendar integration and announcements, driving 10% more user engagement.

### LANGUAGE INTERPRETER | Programming Languages, Racket, Functional & Object-Oriented Programming

- Implemented a custom object-oriented programming language interpreter in Racket for a language modeled after Java and C.
- Developed and executed 100+ unit and edge test cases to ensure robust error handling, correctness, and performance.

### PLATFORM ADVENTURE GAME | Unity, C#, Git/GitHub

- Collaborated on a 2D platformer, featuring obstacles, physics mechanics, and a final boss battle with 5 minutes of gameplay.
- Implemented object-oriented design patterns for scalable and maintainable code, improving codebase organization.

## SKILLS

**Programming Languages:** Python | Java | C/C++ | C# | JavaScript | TypeScript | HTML/CSS | SQL | Racket | Haskell | Prolog

**Frameworks & Tools:** React | Node.js | Express | Docker | Git | APIs | Linux/Unix | Unity | Scikit-Learn | Pandas | MongoDB

**Techniques:** Object-Oriented Programming | Data Structures & Algorithms | System Design | Machine Learning | Data Science