Natalie Rie Cheng

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EDUCATION

Northwestern University   *Evanston, IL*
Bachelor of Science in Computer Science   **Expected Graduation: June 2026**
Minor in Classics, Certificate in Human-Computer Interaction   *GPA: 3.8/4.0*
Relevant Coursework: Game Design Studio | Data Structures & Algorithms | Operating Systems | Discrete Math
Awards: Northwestern Dean's List High Honors ('23) | The Thacher School Cum Laude Society ('21)
Certifications: Electronic Arts Software Engineering Virtual Forage Program ('24)

SKILLS

Programming: C# | Java | C/C++ | Python | HTML | Javascript | CSS | MatLab | Racket | DSSL2
Software: Unity | React.js | Node.js | Git | scikit-learn | NumPy | Matplotlib | Figma | Lucidchart

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PROFESSIONAL EXPERIENCE

Northwestern Technological Innovations for Inclusive Learning & Teaching Lab   *Evanston, IL*
Multicraft & Gesturecraft Project Software Developer   Sept. 2023 – Present
- Created a controller system of customizable hand gestures to adaptively play Minecraft.
- Trained an ML system with Google MediaPipe to identify and classify different hand gestures.
- Spearheaded the transfer from a local-based Python script to a browser-based Javascript application.

MusicNU Project Front-End Developer and Researcher   April 2023 – Present
- Utilized React.js and Node.js to develop a website to teach music theory in Chicago high schools.
- Constructed software capable of independently extracting rhythmic and melodic song patterns.
- Employed self-taught frontend skills to build multi-page music visualizations.

Fulcrum Global Technologies   *Chicago, IL*
Software Development Intern   June 2023 – Aug. 2023
- Led the development of a proprietary AI-based data extraction tool for workflow automation in the legal industry by designing and creating 100+ web and application page wireframes.
- Built 20+ functional webpage prototypes to demonstrate product potential for work optimization.
- Facilitated the integration of a data extraction product to construct a B2C marketplace while working in an Agile environment as the primary liaison between two project leads.

JYC Girls Impact Foundation Girls4Girls Coding Initiative   *Hong Kong SAR*
Coding Counselor   Aug. 2021
- Mentored middle school girls in the Intro to Coding program.
- Conducted coding exercises for program participants in groups of 10-20 as a teaching assistant.

TECHNICAL PROJECTS

Sky's Odyssey   Nov. 2023
- Designed a 2D platform game in Unity in 1.5 weeks incorporating a compelling narrative and expansive map.
- Developed three player states with unique abilities, automated enemy mobs, and an animated cutscene.
- Implemented continuous sprite animations, camera tracking, and dynamic health monitoring.

Sleigh, Santa!   Dec. 2023
- Designed a winter-themed 2D arcade game in Unity in 2 weeks.
- Implemented motion and event-based animation, strategic enemy mob spawning, and interactive instructions.

Pac-O-Lantern   Oct. 2023
- Created a Halloween-themed 2D arcade game in Unity in 1 week.
- Implemented event-based sound effects, enemy mob auto-tracking, and ability animations.