<u>qlu223.github.io</u> Lucynthia223@gmail.com

Cynthia Lu

(425) 295-9706

github.com/qlu223 linkedin.com/in/cynthia-q-lu

EDUCATION

Carleton College

Northfield, MN

BA in Computer Science and Studio Art (3.84 GPA)

Expected June 2026

Relevant Coursework: Data Structures, Algorithms, Software Design, Advanced Software Design, Programming Lang. Design and Implementation, Discrete Math of CS, Intro. to Computer Systems, Multivariable Calculus

Off Campus Study: Architectural Studies in Europe

Italy, Spain, England

SKILLS

Languages: Java, C, Python, HTML/CSS, C++, C#, JavaScript, SQL, Assembly, Scheme

Technical Skills: Git/GitHub, Visual Studio Code, Excel, GDB, Docker, Unity XR interaction toolkit, Oculus

SDK, Arduino IDE

Operating Systems: Windows, iOS, Linux, Mac

EXPERIENCE AND RESEARCH

Carleton Computer Science Department | Course Assistant

Northfield, Minnesota

September 2024 – Present

- Assist students every trimester with understanding course concepts, assignment navigation, and code debugging during lab hours
- Provide positive and constructive feedback on student assignments in a timely and consistent manner
- Observe and relay common errors in student work to teaching faculty to help clarify concepts in classes

Virtual Viking Longship Project | Software Developer, and 3D artist

Northfield, Minnesota

November 2024 – December 2024

- Enhanced Viking ship rowing minigame experience by utilizing Unity XR Interaction Toolkit and C# scripting for intuitive object manipulation and locomotion in VR
- Created fully rendered 3D models of ancient artifacts and imported them as elevated game development assets in Unity
- Collaborated with subject matter teams and experts to ensure accurate historical immersive experiences of the Viking Age

PROJECTS

ReturnToCart | Python, SQL, HTML/CSS, JavaScript

- Collaboratively developed a full-stack Flask web application in an Agile environment, that enables users to search for FDA recall products using keywords and filters such as type of allergen or termination status
- Implemented a test suite with integration and edge case tests in Python's unittest to validate input and handle errors effectively
- Utilized PostgreSQL to store, manage, and query recall data for display in custom HTML and CSS templates

Scheme Interpreter | *C, Scheme*

- Developed core features with C including lexical analysis, parsing, and evaluation for Scheme expressions
- Utilized data structures and garbage collection techniques to handle dynamic memory allocation and recursion calls effectively
- Implemented error checking and validation mechanisms to manage unexpected inputs and edge cases, ensuring robust program execution

Water Lily Fountain | C++

- Integrated studio sculpture techniques with Arduino microcontroller programming to create a finite state machine interactive art installation
- Experimented and troubleshot with power inputs to create compatibility between conflicting microprocessors
- Wrote efficient and organized code in C++ to control hardware components and ensure seamless interaction between sensors and an exhibition audience

AWARDS

- Two-time WGCA (Women's Golf Coaches Association) All-American Scholar
- CSC (College Sports Communicators) Academic All-District At-Large Team