

# Mary Xu

ROLE: Software Engineer | WEBSITE: [maryx317.github.io](https://maryx317.github.io) | EMAIL: changx964@gmail.com

## Skills

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**Languages:** React, C++, GraphQL, C#, Java, JavaScript, OpenGL, Python, TypeScript, HTML/CSS

**Softwares:** Unity, Figma, Adobe Illustrator, Adobe Photoshop, Blender

## Work Experience

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### Software Engineer - Meta Reality Labs (Bellevue, WA)

August 2022 - Present

Unreleased project

- Lead engineer on a 3 month project with several engineers. Helped scope multiple workstreams.
- Currently driving individual workstream through QA testing and experiment release.
- Designed and developed React systems to restrict a unique type of user from accessing certain features across the Oculus app. Built on top of the contactless accounts systems listed below.
- Scoped requirements for certain feature restrictions with product and design teams.

Contactless Accounts in Oculus

- Lead engineer on a 5 month project with several engineers to bring contactless accounts to Oculus.
- Drove workstream through QA testing and experiment release.
- Designed and developed multiple robust React systems to restrict contactless users from using sensitive features across our Oculus app and across multiple tech stacks.
- Redirect these contactless users to an email upsell to add contact info to use sensitive features.
- Scoped requirements for feature restrictions across the whole Oculus app. Worked with the product and design teams to finalize these requirements.

Horizon Avatars Project

- Led, designed, and developed a C++ system for more color choices in Avatar creation on all platforms.
- Built a foundation for developing skin tone, hair color, eye color, makeup, outfit colors, and more.

Meta Accounts Project

- Designed and developed in a PHP system to reconcile birthdays for Meta accounts owned by minors.
- Checks the user to confirm their birthdays, and flags them if they should use a minor account instead.

Meta Quest Store Project

- Developed an updated Meta Quest web store UI in React to align with the Horizons App store.
- Features: flyouts, new app page format, new app tiles, item tags, bundle spotlight art.

### Software Engineer Intern - Microsoft (Redmond, WA)

May 2019 - August 2021

Office for Web Infrastructure Project 2

- Developed in C# to migrate services to use Azure Managed Identities for authentication.
- Reduced cost of managing secrets for our services by 91% and eased future Managed Identity setup.

Office for Web Infrastructure Project 1

- Developed in C# a tool that automates transfer of data from configuration files to a source of truth.
- Saved developers 50% of the work and created a more reliable location for datacenter configurations.

OneDrive/SharePoint Project

- Developed in React and TypeScript a customizable dashboard with draggable widgets.
- Ensured the state of the dashboard saves after logging out after changes.

### Teaching Assistant - Georgia Institute of Technology (Atlanta, GA)

January 2021 - May 2022

Intro to Computer Graphics course

- Hosted office hours to answer project questions, debug code, and teach computer graphic concepts.
- Graded student projects. Gave feedback about what to improve and what went well in their work.

## Projects

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### **Artist/Game Designer - Ghost with the Flow Game**

July 2024

- Endless runner metafiction game inspired by Pony Island. #9 overall, #4 in graphics at MelonJam 2024.
- Designed game mechanics and drew/animated all assets with Adobe Photoshop and Illustrator.

### **Developer/Artist/Game Designer - Waterboy Adventures**

August 2020 - December 2020

- A puzzle-based game built in Unity and C#. The main character is a robot that needs to upgrade his body to gain abilities to replenish the water in his village that is experiencing a drought.
- Developed AI pursuit agents, weapon logic, character persistence logic, and treasure chest persistence logic.
- Modeled the 4 different character bodies in Blender.

### **Developer/Artist/Game Designer - LumberJack Jack GBA Game**

November 2018

- Solo created an escape room GBA game about helping a lumberjack find his way home after work.
- Top 10 project in Computer Organization and Programming class of 400+ students. C, Adobe Photoshop.

## Education

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### **Master's Degree in Computer Graphics**

August 2021 - May 2022

Georgia Institute of Technology (Atlanta, GA)

### **Bachelor's Degree in Computer Science**

August 2017 - May 2021

Georgia Institute of Technology (Atlanta, GA)