

Ramy Zhang

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Software Engineer & Game Developer

I'm a new Computer Science graduate from the University of Toronto who loves to create digital worlds and immersive stories. I'm currently on a quest for deeply involved, high-impact software engineering roles to build games that inspire generations of players!

Skills

C#, C/C++, OpenGL, GLSL, SDL2, TypeScript, JavaScript, React, Next.js, HTML/CSS, AWS, Docker, Jenkins, Python, Groovy, Java, Swift, UNIX (Linux & AIX), SVN, Git, PlasticSCM, Unity, Unreal Engine, Godot, Blender

Education

HBSc Computer Science & Cognitive Science, University of Toronto Sep 2020 - May 2024
Courses: Computer Graphics, Operating Systems, Linear Algebra, Computer Organization, Machine Learning, Data Structures and Algorithms, Multivariable Calculus, Software Tools and Systems Programming, Game Design & Development

Projects

3D Game Engine — github.com/ramyzhang/ubi-next-2024 Dec 2024 - Present
A 3D game engine built solo in C++ with OpenGL; includes ECS with memory pools, a custom software 3D renderer, a boids implementation, a scene management system, and a Vector3 & Matrix4x4 library. Entered top 3 in the Ubisoft NEXT competition.

Twin Dimensions — github.com/ramyzhang/Twin-Dimensions Feb 2024 - Apr 2024
A 3D puzzle escape game built in Unity where you play as a pair of twins; one physical, and one digital. Lead programmer of all game systems (i.e. state management, levels, dialogue, UI, audio with FMOD, visual FX, etc.), 3D prop modeller, and level designer.

ExploreOntario — youtube.com/watch?v=9D7S-SC50J8 Oct 2023 - Dec 2023
An Ontario Public Service iOS app built with OOP principles that plays audio stories of landmarks as users drive. Built in Swift and Supabase, with voice recognition, location tracking, and full admin controls. Designed database, auth, and fullstack integrations.

Bubble, Bubble — starrylady.itch.io/bubble-bubble Sep 2022 - Sep 2022
A 2-player Unity2D fall-themed café simulator game, with NPC pathfinding and a recipe building system. Implemented recipe-making & multiplayer mechanics, and designed audio experience. Built in a week for the Cozy Autumn Game Jam.

Professional Experience

CGI, Software Engineer — Toronto May 2024 - Present

- Solo shipped a mobile wallet via ACAPy & React Native and a digital credential issuance portal with Next.js & AWS in 2 months
- Built a net new Jenkins DevOps CI/CD integration for a municipal electricity utility, reducing deployment time by 10hrs/week
- Working with SVN, AIX, Oracle Weblogic and bash scripting for PROD release automation and environment management

Opal, Founder's Associate — Paris May 2022 - Sep 2022

- Deployed and hosted Opal's new community board serving 1M+ users using AWS, Linux, and Python import scripts
- Built and maintained automated 24/7 YouTube focus streams using Linux virtual machines and custom OBS Lua scripts

Deloitte, Business Technology Analyst — Toronto Jul 2019 - Sep 2019

- Built an Arduino device predicting when seniors may fall 3 weeks in advance, using Python for signal processing
- Developed a webapp for rehabilitation and fall prevention using Node.js, React, MySQL and Twilio APIs

U.CASH, Software Developer Intern — Remote Jul 2018 - Sep 2018

- Built the top-up and withdrawal features of the U.CASH conversion system with MySQL and knex.js

Activities

Game Design & Development Club, Vice-President — University of Toronto Sep 2021 - May 2024

- Wrote game development resources and lead weekly meetings as well as game development workshops for 50+ members
- Obtained and liaised with sponsors for the club's game jams (i.e. Bungie, Unity)
- Lead two game development project teams (3-5 developers, musicians, and artists) as lead developer

Blueprint, Project Lead — University of Toronto Sep 2022 - May 2023

- Shipped a teaching support tool on iOS/Android in React Native for Sistema music teachers, available on the App Store
- Designed data architecture, wrote developer documentation, reviewed pull requests, and taught workshops for React
- Leveraged Redux, Google Drive APIs (OAuth2), Axios, and React Native's local file system
- Communicated and workshopped design requirements with Sistema client, hosting several user testing sessions

Honors

Top 3, Ubisoft NEXT Programming Challenge, Ubisoft Toronto 2025

Co-op of the Term Award Nomination, CGI 2024

Dean's List, University of Toronto 2021