

Ness Chu

// Software Engineer

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> Work History

Macro (Software Engineer)

May 2022-July 2025

- ↳ Delivered features end to end to meet external and internal asks in a fast-paced startup environment
 - ↳ Shipped diagramming tool over the course of 4 months using **Typescript** and **React**, allowing users to apply pointer events to **HTML** div and SVG elements stored to and edited from **JSON** objects constrained using **Zod schemas**
 - ↳ Delivered email tool over the course of 2 months that communicated with the **Gmail API**, allowing for the scalable loading/sending of emails with attachments integrated with Macro's existing file system
 - ↳ Shipped a feature for users to create, modify, and save annotations within a PDF viewer using **Typescript**, **React**, and **PDF.js**
 - ↳ Designed and implemented new home page using **Typescript** and **React**, enabling starring, filtering, and removal of recent files, improving **UX** and streamlining the demo process for our marketing team
- ↳ Expanded functionality of DOCX and PDF comparison algorithm in **C#** and conducted tests in **Playwright** and **Go** to address requests from 3+ major investors at a monthly cadence
- ↳ Parsed and debugged **OOXML** to identify and implement root-cause fixes for cross-software file-sharing and conversion between DOCX and PDF to improve overall app reliability
- ↳ Tracked and reported progress on **Linear**, at daily stand-ups, **agile sprint-planning**, and **retrospectives** to consistently meet deliverables
- ↳ Performed **code migration** to bring features from desktop application to in-browser
- ↳ Worked with **GitHub actions** and **CI/CD** pipelines to maintain code hygiene via automated tests and linting, deploy and test in dev environments, and finally deploy to the live production environment
- ↳ Adapted UI from desktop features to accommodate screen sizes and gesture events of iOS and Android **mobile** platforms

Ubisoft Montreal (Tools Programming Intern)

May-August 2021

- ↳ Designed and integrated reusable **LitElement web components** in a full-stack context
- ↳ Followed **performance** best practices when developing, such as asynchronous coding and reducing the volume of server calls
- ↳ Created customizable **JSON configuration** to generate HTML content from existing components
- ↳ Used and debugged **Docker** containers to locally test applications
- ↳ Resolved **JIRA** issues in **Agile sprints** to address user requests and meet bi-weekly deadlines

> Education

McGill University (B.Sc. Computer Science/Biology Joint Major)

2017-2022

McGill Game Development Student Society President

2020-2021

- ↳ **Coordinated a team of 12** executives in organizing events such as workshops, talks, and hackathons, to build a community for student game developers at McGill University
- ↳ **Presented** club achievements and goals to internal and external sponsors to **secure annual sponsorships**

> Projects

The Third Law (Ubisoft Game Lab Competition Project)

January-March 2021

- A physics-driven multiplayer platforming game prototype, developed in a team of 8
- ↳ Implemented **Cinemachine camera** to dynamically follow two independently moving players
 - ↳ Added **UI feedback** for player movement direction and off-screen pick-up items
 - ↳ Created **contextual ping system** using **raycasts** from camera to objects through mouse position

> Skills

- ↳ **Key Skills:** Programming Languages -> *JavaScript/TypeScript, Java, C#, Python*
 - Web Development -> *HTML, CSS, React, Tailwind, Playwright, Postman*
 - Version Control -> *Git, Perforce*
 - Design -> *Adobe Photoshop, Figma*
 - Game Development -> *Unity, Unreal Engine, Blender*
 - Package Management -> *npm, yarn, bun*