Christina Lin

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Skills Summary

- **Languages:** Typescript, Javascript, HTML/CSS, Java, Python, SQL, Assembly, C/C++
- **Frameworks & Libraries:** React, Next.js, Nest.js, Express.js, Casbin, Prisma ORM, Tailwind CSS
- **Tools & Databases:** SQL Server, Git, Linux, CentOS Hosting, Figma

Education

- **University of Toronto - St. George Campus** September 2021 - Present
  Bachelor of Science - Computer Science Specialist, ASIP Co-op

Experience

- **Full-Stack Software Developer Intern** May 2023 - Present
  PMG Holdings
  - Migrated an Enterprise Resource Planning (ERP) application from a ColdFusion application to a modern tech stack.
  - Addressed **SQL Server** structural concerns by redesigning the database under stricter schema & conventions.
  - Developed the software's **Nest.js** REST API, communication with the database via **Prisma ORM**, and access control & policy management via **Casbin**.
  - Designed & implemented a web-based **React.js** application to facilitate communication with the API.
  - Deployed these services on traditional **CentOS** servers.

Projects

- **Communify - Prototype Collaborative Music Platform (Java, Swing)** December 2022
  - Implemented the MP3 data uploading process, metadata parsing & persistence using **Jaudiotagger**.
  - Introduced a modern UI design utilizing the **FlatLaf** library.
  - Developed a strong understanding of clean architecture and coding in a large team.

- **COVID Sentimentality - Data Congregation & Analysis Tool (Python)** December 2021
  - Implemented mass Twitter data-scraping via the **Twint** library.
  - Utilized the **Pandas** library in analyzing & manipulating the emotional index of tweets.
  - Developed algorithm to calculate indices using a word-emotion lexicon and approximate & phonetic matching.

- **Voter Authentication System - Reconceptualized Modern Voting System (Python)** October 2021
  - Implemented ID authentication against a preexisting database.
  - Parsed ID information using optical character recognition (OCR) via the **Pytesseract** & **OpenCV** libraries.
  - Finalist for the 2021 McMaster Engineering Competition.

- **Dungeon Crawler - Solo Game Development (Java, Slick2D, LWJGL)** June 2020
  - Implemented algorithm for the Spelunky-style procedurally-generated parallax maps.
  - Developed player movement, NPC AI traversal & attack algorithms.
  - Strengthened understanding of recursion via implementation of modular algorithm designs.

- **CoFit - Health & Fitness Mobile Application (Figma, Marvel)** March 2020
  - Coordinated team and introduced the overarching design principles.
  - Designed the application with **Figma**, wireframed with **Marvel**.
  - Winning application at the Waterloo Catalyst Conference.

- **Brawler - Solo Game Development (C++, Qt Creator)** June 2019
  - Implemented four unique character movement & skillsets within three dynamic environments.
  - Developed understanding of menu designs & game development fundamentals.
  - Experienced developing from scratch and without libraries.

Honours and Awards

- Horatio Alger Association National Entrepreneurial Scholar 2021
- McMaster University Engineering Challenge (MEC) Finalist 2021
- Two-Time University of Waterloo Catalyst Program Project 2020
- McHacks Winner of Best UI/Design 2020