# Andrew Guo

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#### **EDUCATION**

#### Carleton University

Ottawa, Ontario

Honours Bachelor of Computer Science, Software Engineering Concentration

Sep. 2020 - Present

• 3rd-year standing, 12.0/12.0 CGPA (A+)

## AVAILABILITY

Available for 8 months, beginning May 2023

### EXPERIENCE

## Software Developer

May. 2022 – Aug. 2022

Ross Video Ltd.

Ottawa, Ontario

- Wrote and reviewed low-level driver code in C and committed over 5,000 lines of code for software used in mission-critical hardware
- Updated and migrated production code between diverse LTS software releases
- Followed Agile software development methodologies to quickly implement new features for clients

## Teaching Assistant (Systems Programming in C)

Sep. 2021 - May. 2022

Carleton University

Ottawa, Ontario

- Automated feedback entry into the University's learning platform using Selenium and Python to parse XLXS data which decreased grade input times by over 70%
- Collaborated with other teaching assistants to provide weekly tutorials that reinforced student learning of course material to 100+ students
- Assisted course instruction by writing constructive feedback on assignments, tests, and projects to facilitate learning in undergraduate computer science courses

#### **Assistant Instructor**

Feb. 2015 – Jan. 2020

Kumon North America

 $Ottawa,\ Ontario$ 

- Communicated with parents on a regular basis to provide updates on their child's progress and address any concerns
- Monitored and tracked students' progress through regular assessments and feedback sessions that ensured effective learning in math and English
- Fostered and maintained a positive and supportive learning environment for students

#### Projects

Look-Inna-Book | Typescript, React, Next.js, Supabase (PostgreSQL), Node.js

Nov. 2022 - Dec. 2022

- Developed a full-stack web application with Supabase serving a REST API with Next.js as the frontend hosted on Vercel to enable CRUD operations
- Implemented GitHub and Google OAuth featuring JSON Web Tokens to grant user account access
- Wrote server-side PostgreSQL functions, triggers, policies, and queries
- Designed comprehensive ER Diagram and normalized database schemas to improve data integrity

#### Personal Website | Javascript, React, Gatsby, Tailwind CSS, Node.js

Apr. 2022 - Apr. 2022

- Deployed a desktop and mobile responsive static single-page application with React router
- Implemented automatic dark/light mode themes using React contexts, hooks, CSS selectors, and browser cookies
- Embedded SEO optimization and Google Analytics to monitor and increase web traffic and visibility

## Multithreaded HTTP Server | C, Bash, Linux

Dec. 2021 - Jan. 2022

- Built an HTTP 0.9/1.0 compliant web server with socket connections, mutexes, and condition variables
- Implemented a thread pool and task queue to parallelize connection handling
- Used regex to parse client fetch requests to ensure compatibility across different browsers

## TECHNICAL SKILLS

Languages: C/C++, Java, Python, Javascript, Typescript, SQL (Postgres), GraphQL, HTML/CSS, Haskell, Rust, Bash

Frameworks: React, Node.js, Next.js, Express.js, Gatsby, MongoDB, Supabase

Developer Tools: Git, GitHub, Subversion, Jira, Vercel, Netlify, Selenium, Excel