

# Andrew Guo

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## EDUCATION

### Carleton University

*Honours Bachelor of Computer Science, Software Engineering Stream*

Ottawa, Ontario

Sep. 2020 – Present

- 3rd-year standing, 12.0/12.0 CGPA (A+)
- Carleton Faculty Scholarship (2020-2024)
- Jamie Corbet Memorial Award (2022/2023)
- Dean's Honour List (2020/2021, 2021/2022)

## AVAILABILITY

- Available for 4 or 8 months, beginning May 2023

## EXPERIENCE

### Software Developer

*Ross Video Ltd.*

May. 2022 – Aug. 2022

Ottawa, Ontario

- Wrote and reviewed low-level driver code in C and committed over 3,000 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)

*Carleton University*

Sep. 2021 – May. 2022

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

*Kumon North America*

Feb. 2015 – Jan. 2020

Ottawa, Ontario

- Monitored and tracked students' progress through regular assessments and feedback sessions that ensured effective learning in math and English

## PROJECTS

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

- 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 auth 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*

- 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*

- 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