

Andrew Guo

Embedded Software Developer | Full Stack Enthusiast

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Education

Bachelor of Computer Science, Honours

Carleton University

- Third-year standing, 12.0/12.0 CGPA (A+)

Sep 2020 – Apr 2025

Ottawa, Canada

Professional Experience

Software Developer

Ross Video

- R&D embedded C developer for flagship Ultrix Acuity Live Production Switchers
- Utilized Jira and Agile software development methodologies to fix bugs and implement new features

May 2022 – Current

Ottawa, Canada

Teaching Assistant

Carleton University

- Collaborated with fellow teaching assistants to teach weekly tutorials in Python that reinforced student learning of course material
- Connected with students through weekly office hours that furthered their understanding of course material

Sep 2021 – Apr 2022

Ottawa, Canada

Assistant Instructor

Kumon North America

- Motivated student learning by providing constructive feedback on their work
- Organized student course material that ensured effectively learning in math and English.

Feb 2015 – Jan 2020

Ottawa, Canada

Projects

Personal Website

Gatsby, React, JavaScript, Tailwind CSS

- Deployed responsive static single page application with React router
- Implemented dark/light mode themes using React hooks (state, reducer, context, effect), Tailwind selectors, and browser cookies

Multithreaded HTTP Server

C, Bash

- Built an HTTP 0.9/1.0 web server using socket connections, mutexes, and condition variables
- Implemented a thread pool and task queue to parallelize connection handling
- Used regular expressions (regex) to parse client requests

Skills

C/C++ | Python | Rust | JavaScript (ES6) | Node.js | Express.js | MongoDB | Gatsby | React

GraphQL | Java | Jira | Subversion | Git | Bash | GNU Make | TCP/IP - UDP

Multi-threaded and IPC programming