Andrew Guo

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EDUCATION

Carleton University — Ottawa, Ontario
Honours Bachelor of Computer Science, Artificial Intelligence and Machine Learning Stream — *Sep. 2020 – Present*
- 4rd-year standing, 12.0/12.0 CGPA (A+)

EXPERIENCE

Junior Full Stack Developer — May. 2023 – Present
Public Health Agency of Canada — *Ottawa, Ontario*
- Bootstrapped Google Cloud Platform infrastructure in Terraform and created a CI/CD pipeline to deploy highly available apps inside Google Kubernetes Engine from repositories stored on GitHub
- Benchmarked and optimized existing GraphQL API to improve productivity for downstream users
- Wrote Python in Django and Databricks to transform and deliver health data to users in production

Software Developer — May. 2022 – Aug. 2022
Ross Video Ltd. — *Ottawa, Ontario*
- Wrote low-level driver code in C and prepared software for release 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

PROJECTS

Search Engine | *Typescript, React, Vite, Rust, MongoDB*
- Implemented a web crawler using Puppeteer to gather site data to index and store in MongoDB for a rudimentary search engine
- Used Rust Axum and Tokio runtime to create a RESTful API to deliver JSON data from MongoDB up to 10x faster than Express.js
- Created a interactive browser client to allow user searches using debounced search queries and parameters in React

Look-Inna-Book | *Typescript, React, Next.js, Supabase (PostgreSQL)*
- Developed a full-stack web application with Supabase serving a RESTful API with Next.js as the frontend hosted on Vercel to enable CRUD operations
- Implemented authentication featuring JSON Web Tokens to grant role based 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*
- 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

TECHNICAL SKILLS

Languages: C/C++, Go, Rust, Python, Javascript, Typescript, SQL (Postgres), GraphQL, Bash, Terraform (HCL)
Frameworks/Runtimes: React, Node.js, Express.js, Next.js, Gatsby, Rust Axum (Tokio), Django
Developer Tools: Google Cloud Platform, Kubernetes, Docker, Git, GitHub, Jira, Vercel, Selenium, Puppeteer, Azure, Databricks, Excel