Chris Pop

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Experience

Upgraded Ltd. 🌐 **Toronto, ON**

Software Engineering Intern *May 2024 – Present*

- Modernised a scraper for the Canadian government's Business Benefits Finder utilizing **Selenium**, **JavaScript**, **Node.js**, and a **GenAI** model on **Heroku**, achieving a 75% increase in scraping speed through implementing automatic CAPTCHA bypass techniques, alongside doubling accuracy through LLM prompt engineering.
- Designed and implemented an update to the application using **Next.js**, **React**, **TypeScript**, **Tailwind CSS**, and **Vercel**, optimizing loading times by 25% through server-side rendering, caching optimizations, and refactoring.
- Engineered a mobile app scraper using **JavaScript**, **Tesseract OCR**, **OpenCV**, and **EAST algorithm**, automating conference attendee data extraction, and integrated with **Apollo**, reducing manual data entry time by 80%.
- Enhanced billing efficiency for 30 clients by integrating a **Node.js** server on **Heroku** with **Zapier** and **APIs** from **OpenAI**, **Gmail IMAP**, **Stripe**, and **Airtable**. Leveraged GenAI to interpret images and files for precise invoice management and reconciliation of mailed receipts, resulting in significant time savings and improved accuracy.
- Revamped a **JavaScript** grant auto-draft feature using a **GenAI** model, leveraging successful examples and company data from **Airtable**, reducing the operations team's writing time by 10 hours on average.

Vahana **Mississauga, ON**

Project Lead *May 2024 – August 2024*

- Architected and deployed **AWS** infrastructure using **Amplify** with **TypeScript** and **Git** for CI/CD, and **AppSync** with **GraphQL**, integrating front-end and back-end. Enhanced security by implementing **CloudFront** for secure communications and managing keys with **Secrets Manager**, ensuring data protection and operational efficiency.
- Integrated **AWS Cognito** for authentication, **DynamoDB** for database management, **S3** for storage, and **Pinpoint** for messaging. Developed **RESTful APIs** using **AWS Lambda** and **API Gateway**.
- Implemented **Stripe** for payment processing and **AWS Quantum Ledger Database** with **Lambda** to record transaction history. Monitored and maintained 23 cloud resources through **AWS CloudWatch** and **DevOps**.
- Spearheaded mobile development on Android and iOS with **Android Studio**, **Kotlin**, **Jetpack Compose**, and **Swift**. Contributed to the web application's UI written in **Next.js**, **Tailwind CSS**, and **TypeScript**.
- Integrated **Google Maps API** for seamless UI and rapid routing logic, improving UX across all platforms.

Digital Portfolio ⧉ 🌐 **Mississauga, ON**

Solo Project *April 2024 – July 2024*

- Created a web portfolio with **Next.js**, **React**, **Tailwind CSS**, **TypeScript**, and **Framer Motion**, optimizing server-side rendering to increase speeds by 75% and implementing SEO for better performance and visibility.
- Deployed and managed applications on **Vercel**, utilizing CI/CD pipelines and **Git** for robust version control, resulting in streamlined deployment processes and minimised development delay.

Skills

Languages: JavaScript (TypeScript, Node.js, Express.js), Python, Kotlin, C++, Swift, HTML/CSS, SQL, VHDL
Frameworks and Libraries: React, Next.js, Framer Motion, Tailwind CSS, Selenium, Google Maps API, OpenCV
Cloud Platforms and Services: AWS (Amplify, AppSync, DynamoDB, CloudFront, CloudWatch, DevOps, Cognito, Lambda, S3, Secrets Manager, Pinpoint, Quantum Ledger Database), Heroku (Node.js server hosting), Vercel
Software and Tools: Git, Docker, VS Code, Android Studio, SOLIDWORKS, AutoCAD, Arduino, STM32

Education

University of Waterloo **Waterloo, ON**

B.ASc. Computer Engineering (GPA: 3.8/4.0) *September 2023 - April 2028*
Key Coursework: Programming Fundamentals (ECE150), Digital Circuits & Systems (ECE124), Calculus 2 (MATH119)