

Simon Tran

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EDUCATION

Polytechnique Montréal

Baccalaureate in Computer Engineering (fifth year ongoing)

- Computer Security and Mobility Concentration

Montréal, Qc

August 2018 – May 2023

EXPERIENCE

Amazon | Java, Typescript, React, GraphQL

Software Developer Intern

May 2022 – August 2022

Toronto, On

- Migrated the gift card locking feature to Amazon's new customer service internal platform
- This feature is part of the ongoing migration to the new platform and aims to reduce the dependency to legacy code
- Designed a GraphQL schema to link the new user interface to the gift card locking functionality

Google | Rust, C++, Fuchsia

Software Developer Intern

January 2022 – April 2022

Remote

- Contributed to Fuchsia, Google's open-source operating system
- Worked on the "Structured Configuration" Fuchsia project
- Developed "ffx plugins" in Rust, command line tools used to debug Fuchsia components. These plugins will be used by future developers and will greatly reduce the time needed to debug the operating system

🔗 www.github.com/tran-simon/fuchsia

Vélocité Conseil | Typescript, React, Firebase, Material-UI, Stripe

Fullstack Lead Developer

September 2020 – January 2022

Montréal, Qc

- I was the lead developer of Hazing Brewing app, a React web application that helps home brewer create new beers. I developed the whole application from almost nothing while taking key architectural and technological decisions along the way
- Developed a recipe creation and management system, an inventory manager and a brew scheduler. This allows brewers to create, plan and brew their beers using the application
- Implemented support for multiple authenticated users in an organization. This allows multiple users to collaborate on a brew
- Implemented a system to import beer recipes from other brewing softwares. The system supports fuzzy-matching to match various ingredients from external softwares
- Added user authentication with an email or a Google account using Firebase Authentication
- Integrated Stripe payment gateway to enable in-app purchases, processing transactions securely and reliably
- Engineered the structure of the databases in Firebase Realtime Database and Firebase Storage
- In charge of application security and user data privacy. I implemented different user roles and I employed robust automated testing to limit vulnerabilities

National Bank of Canada | Java, Javascript, React, Spring, Spring Boot

Intern Developer

May 2019 – August 2020

Montréal, Qc

- Worked on an internal application. I implemented various functionalities on the frontend in React (Javascript) and I worked on the backend in Java using Spring Boot
- Developed features for the bank's mobile application using React Native
- Migrated half a dozen microservices from earlier versions of Spring Boot to a newer version. This helped reduce technological debt and improved the security of the microservices

PROJECTS

Unblock Me | Kotlin, Android, LibGDX

Winter 2023

Sliding block puzzle game for Android

- Created a mobile game for Android in Kotlin
- Implemented the game logic and graphics using LibGDX resulting in smooth animations and sounds

🔗 <https://github.com/tran-simon/inf8405-UnblockMe>

Jami-Web | React, Typescript, Express, WebRTC, Swig, Docker

Fall 2022

Final project at Polytechnique in association with Savoir-faire Linux

- Created the web version of Jami: An open-source distributed video conference application
- Implemented the logic and interface to make calls in the web application using WebRTC-2pt
- Worked on a new backend service for Jami-Web that includes authentication management, a REST API and a WebSocketConnection with the client. The backend was written with Express.js in Typescript
- Created a CI pipeline using Jenkins. I wrote the Dockerfile to containerize the application

🔗 www.github.com/tran-simon/jami-web

Crazyflie Drone Exploration | C, Python, Flask, React, Typescript, Firebase

Winter 2021

Third year of university final project

- Development of an artificial intelligence for a Crazyflie drone in C
- Developed a base station server in python to communicate with the robots
- Created a web user interface in React and Typescript. The app lets a user interact with the base station and visualize the results of the exploration
- Results are saved in Firebase Realtime Database
- Frontend deployed on Firebase: <https://inf3995-100.web.app/>

🔗 www.github.com/tran-simon/inf3995-main

Polydessin | Angular, Typescript, Node, Express, Bitbucket pipelines, Firebase hosting

Winter 2020

Second Year of university final project

- Created a drawing web application in Angular (Typescript). The application supports various ways of drawing lines and shapes
- Created a backend using Node and Express
- Wrote a pipeline for continuous integration and deployment using Bitbucket pipelines
- Demo version deployed using Firebase: <https://log2990-104.web.app/>

🔗 www.github.com/tran-simon/LOG2990-104

The Mass Spectrometer | Java, Swing

Winter 2018

End of CEGEP project: Scientific application in Java to simulate a mass spectrometer

- Created a Java application that can be used to simulate a mass spectrometer, a cyclotron and the behavior of particles under the effect of electromagnetic fields
- Implemented an interface to visualize electromagnetic fields using a heatmap

🔗 www.github.com/tran-simon/Spectrometre

TECHNICAL SKILLS

Languages: Javascript, Typescript, Java, Kotlin, Rust, Python, C, C++, HTML/CSS

Frameworks: React, Angular, Node.js, Express, Flask, Material-UI, Spring/Spring Boot, React Native

Cloud Technologies: AWS, Google Cloud Platform, Firebas, Azure, Docker, docker-compose

Mobile Development: iOS/Android, React Native, Java/Kotlin

Operating System Development: Fuchsia (Rust, C++)

CI/CD: Jenkins, GitHub Actions, Bitbucket Pipeline, GitLab Pipelines

Miscellaneous: Git, GitHub/Gitlab/Bitbucket/Gerrit, Jira/Trello, Confluence, Windows, macOS, Linux (Arch)

Languages: French, English, Spanish (Beginner)