

# Alex Tsarapkin

613-400-2002 | [atsarapk@uwaterloo.ca](mailto:atsarapk@uwaterloo.ca) | [github.com/AlexanderTsarapkin](https://github.com/AlexanderTsarapkin) | [linkedin.com/in/AlexTsa](https://linkedin.com/in/AlexTsa)

## SKILLS

---

**Languages:** Java, JavaScript, TypeScript, C++, C, HTML/CSS, Python, Verilog, Assembly

**Technologies:** Spring Boot, Node, Maven, Docker, SQL, Next, React, Express, AWS, Unix, OAuth, Git

## EDUCATION

---

### University of Waterloo

Sept 2021 – Present

BASc Computer Engineering, Honours, Co-op

Waterloo, ON

- Undergraduate student with a 3rd year average of 87%

## EXPERIENCE

---

### PointClickCare

Jan 2024 – Apr 2024

Software Engineer | Java, Spring Boot, Typescript, Maven, Node, Docker, SQL, Postgres, Cypress

Waterloo, ON

- Developed the backend for a cloud-based inter-facility patient management and assessment platform serving over 2,800 hospitals, 27,000 senior care facilities, and 1.7 million patients each day across North America
- Designed and implemented a Spring Boot backend service for a skin and wound assessment MVP enabling doctors and nurses to create, track and update issues for patients with wounds
- Spearheaded research and development of an automatic MDS 3.0 medical assessment change specification testing/implementation tool leveraging LLMs to handle testing of 60% of changes saving an estimated 1,600 developer hours annually

### Ontario Digital Service

May 2023 – Aug 2023

Software Developer | JavaScript, TypeScript, React, Nest, AWS, Elasticsearch, Swagger

Toronto, ON

- Developed the backend, frontend, and SEO for the overhaul of Ontario's official online representation of legislature
- Implemented routes, integrated route interceptors, and established route pipelines for the backend of the website
- Created flat-file generator for 75,000+ pages on S3, enabling search engine crawling, 3rd party use, and also functioning as a backup in case of primary site failure

### NCR Corporation

Sept 2022 – Dec 2022

Software Developer | Java, GCP, Kubernetes, Docker, Jenkins, Swagger

Waterloo, ON

- Developed containerized API routes to handle client account information requests from microservices in a domain-specific language utilizing Java and Spring
- Configured Kubernetes clusters running on Google Cloud Platform used for hosting APIs and microservices enabling requests against simulated data and updating active container images
- Created dozens of integration tests to verify API responses ensuring coverage of all use cases

### Ontario Digital Service

Jan 2022 – Apr 2022

Software Developer | JavaScript, Node, React

Toronto, ON

- Created robust web components standardized for all Ontario.ca websites with 12.4 million monthly sessions
- Produced public web component use-case and implementation documentation for developers across all Ministries

## EXTRA-CURRICULARS

---

### Develop For Good — American Society on Aging

Nov 2023 – Feb 2024

Volunteer Lead Backend Engineer | JavaScript, Typescript, Next, Okta, Twilio, AWS

- Architected and developed an open-source communication platform to connect organization clients with agents
- Implemented OIDC workforce authentication and management, inbound call handling, and agent task routing

### Waterloo Engineering Competition

2024 Winners | JavaScript, Typescript

- Won the programming category to represent the University for the 2024 Ontario Engineering Competition

## PROJECTS

---

**Media File Server** | Java, JavaScript, Spring Data JPA, SQL, Node, React, OAuth

- Created a file server for storing photos and videos using a Spring Data JPA backend with a React web portal
- Integrated Google OAuth 2.0 for frontend login management verifying user tokens with backend
- Used an SQLite database to store user info and file metadata including previews