

# Marcus Chok

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## SKILLS

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**Languages:** TypeScript, JavaScript (ES6+), C#, C++, HTML, CSS/SCSS  
**Frameworks and Libraries:** React, Redux, ASP.NET Core, Next.js, Express, Node.js, Angular, Spring Boot  
**Tools and Technologies:** Git, Terraform, Google Cloud Platform, Docker, Tekton, SQL Server, MySQL

## EXPERIENCE

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**Ford Motor Company of Canada, Limited (Ford Pro)** Oakville, ON  
*Software Engineer Intern* May 2022 – August 2022


- Prototyped a custom blog using React and TypeScript that adheres to **WCAG 2.0 Level AA standards**
- Contributed 3 components to company-wide library and wrote tests in Jest to **reach 100% test coverage**
- Built a micro-frontend with webpack to support parallel development and reduce bundle sizes across modules
- Leveraged Ghost CMS to create a REST API connected to MySQL, modifying Ember.js code to fit use cases
- Employed Terraform to provision infrastructure on GCP, using Cloud Run to deploy Docker images
- Created a CI/CD pipeline with Tekton to automate testing/deployment, **decreasing throughput time by 60%**
- Integrated pipeline with static analysis and security scanning tools, **eliminating 90% of vulnerabilities**
- Diagnosed a critical routing defect in production website, **saving thousands of dollars** in potential costs

**TS Analytics Canada Ltd. (TRIYO)** Toronto, ON  
*Full Stack Developer* Sep 2021 – Dec 2021

- Implemented dynamic dashboard widgets using React and Redux to display user-customized content
- Designed API endpoints and web services using ASP.NET to compile data from multiple tables for display
- Optimized LINQ queries to a cloud-based SQL Server instance to **decrease potential latency by 66%**
- Refactored HTTP request services to simplify configuration, **eliminating 10+ instances of code duplication**
- Spearheaded improvements to cross-team collaboration, **reducing bugs reported between sprints by 31%**

## PROJECTS

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**Listen and Go**  Apr 2021 – May 2021

- Architected an accessible audio player using Angular Material to play remote YouTube playlists and songs
- Migrated existing REST API to GraphQL, optimizing data throughput and **decreasing loading times by 15%**
- Designed a normalized PostgreSQL database using Entity Framework Core to eliminate data repetition
- Automated HTTP requests to the YouTube API and used .NET Core Identity to prevent unauthorized calls

**Expense on Rails**  Feb 2021 – Mar 2021

- Developed a sortable user interface with Next.js and Material-UI to visualize user expenses and transactions
- Refactored state management logic with Redux to **reduce the number of database queries by 50%**
- Built a RESTful API with Express to allow users to input, update, and delete data from a MongoDB database
- Implemented authorization using Passport, encrypting data with JSON Web Tokens to ensure secure transfer

## EDUCATION

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**University of Waterloo**  
*Candidate for Bachelor of Computer Science* Sep 2020 – Present

- Term Distinction: Fall 2020, Winter 2021, Spring 2021, Winter 2022 (GPA: 3.94, CAV: 91.75%)