

# Daniel Song

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## EDUCATION

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### University of Waterloo

Waterloo, ON

Bachelor of Computer Science (cumulative GPA: 3.9/4.0)

September 2019 – June 2024 (expected)

Relevant coursework: Algorithms, Data Structures, Operating Systems, User Interfaces, Database Management

## EXPERIENCE

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### Software Engineering Intern

May 2022 – August 2022

Rippling

San Francisco, CA

- Reduced monthly engineering support time by 70% for an automated registration service by building a dashboard using React and Django that provides support agents with customer information that engineers would previously manually retrieve
- Created a scalable tool using React and Django to allow companies to migrate 10 000+ work email addresses to a new email domain in minutes
- Wrote a performant MongoDB migration in Python to normalize 200 000+ misspelled or non-standard country subdivision names in user-entered addresses using fuzzy matching

### Backend Engineering Intern

September 2021 – December 2021

Faire

Kitchener, ON

- Increased weekly retailer-to-brand referral conversions by 12% by creating a backend API in Kotlin that allows retailers to view and modify existing referrals
- Converted 200+ data model definitions from Java to Kotlin, uncovering and addressing hundreds of null safety issues throughout the backend codebase
- Built a backend API in Kotlin to allow retailers to recommend brands to be added to promotional brand collections for various underrepresented communities

### Software Engineering Intern

January 2021 – April 2021

Mentum Group

Markham, ON

- Built out redesigns for existing React- and React Native-based food ordering clients
- Added support for food delivery by building a Go wrapper library for DoorDash and Postmates delivery APIs
- Migrated 80% of the existing frontend codebase from JavaScript to TypeScript and introduced ESLint and code formatting configurations, improving maintainability and reducing typing-related warnings by more than 95%
- Improved frontend end-to-end test coverage by writing more than 50 Cypress tests
- Scheduled daily data aggregation tasks, such as calculating expected menu item preparation times, using cron

### Machine Learning Engineering Intern

May 2020 – August 2020

Tealbook

Toronto, ON

- Developed a natural language processing-based web crawling system in Python to extract founding years from company websites using PyTorch and Hugging Face Transformers models
- Deployed the system on a distributed cluster of Google Compute Engine instances using Docker, extracting 700 000+ datapoints from more than 4 000 000 websites with a 95% accuracy rate
- Added support to an existing Python web crawling system for extracting addresses from company websites in an additional 13 countries across Asia and Europe by fine-tuning Hugging Face Transformers models using PyTorch

## PROJECTS

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### Gemuboi.js ([gemuboi.com](http://gemuboi.com))

December 2020 - Present

- Developed a browser-based Game Boy emulator using JavaScript and Canvas, including full forward compatibility with Game Boy Color games
- Implemented accurate audio generation with Web Audio and persistent game save storage using Web Storage
- Tested on 90+ Game Boy and Game Boy Color games, more than 98% of which have no accuracy issues

## TECHNICAL SKILLS

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**Languages:** Python, JavaScript/TypeScript, SQL, Kotlin, C/C++, HTML/CSS

**Frameworks:** React, Django, Flask, Node.js, React Native

**Databases:** MongoDB, Postgres, Redis

**Developer Tools:** Git, Docker, VS Code, PyCharm, IntelliJ

**Libraries:** pandas, NumPy, TensorFlow, PyTorch