Daniel Song

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EDUCATION

University of Waterloo   Waterloo, ON
Bachelor of Computer Science (cumulative GPA: 92%, 3.9/4.0)   September 2019 – June 2024 (expected)
Relevant coursework: Algorithms, Data Structures, Operating Systems, User Interfaces, Database Management

EXPERIENCE

Backend Engineering Intern   September 2023 – December 2023
Faire
- Intern on the Catalog Completeness team

Software Engineering Intern   May 2023 – August 2023
Squint
- Reduced engineer time spent supporting customer issues by leading the development of a customer dashboard using Retool
- Integrated Sentry error logging into the web client, reducing engineer time spent debugging crashes
- Built a staging environment for the web client using GitHub Actions, improving stability for releases to production

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
- 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
- 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
- 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

Gemuboi.js (gemuboi.com)   December 2020 - Present
- Developed a browser-based Game Boy emulator using JavaScript, including full 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

Languages: Python, JavaScript/TypeScript, SQL, Kotlin, C/C++, HTML/CSS
Frameworks: React, Next.js, Django, Flask, Node.js, React Native, Flutter
Databases: MongoDB, Postgres, Redis, Firebase
Developer Tools: Git, Docker, VS Code, PyCharm, IntelliJ
Libraries: pandas, NumPy, TensorFlow, PyTorch