

# Sim Kalkat

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## WORK EXPERIENCE

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**Pixieset** - *Full Stack Developer* - Vancouver, BC

May 2024 – Present

- Led Application Security as primary POC for 7 person engineering team: Conducted OWASP Top 10 and MITRE ATT&CK reviews/mitigations across new and key flows. (Threat Modeling, SDD)
- Identified high-severity exploitable vulnerabilities across production systems and escalated findings to engineering leadership. (Rapid7- SIEM, Sentry, SAST, Snyk)
- Integrated automated scanning (TruffleHog) into the CI pipeline and partnered with DevSecOps to harden legacy code paths.
- Prototyped facial grouping and search, for natural language photo search. (Python DeepFace, AWS OpenSearch, Laravel 11)
- Refactored legacy queries, achieving a 300x performance improvement for flagship product. (PHP, New Relic)
- Led CAPTCHA service migration, saving over \$10,000 a year.
- Designed and implemented database seeders to generate realistic test data for smoke tests and edge cases, saving engineers hours of manual setup. (Laravel 11, MySQL, AWS)
- Shipped features and enhancements for the flagship product. (PHP Yii 2, Laravel 11, Vue 3, TypeScript, JavaScript)

**Priceline** - *Back End Developer* - Winnipeg, MB

May 2021 – May 2024

- Prototyped a fuzzy-matching prototype to detect likely-duplicate hotel amenity names to support data normalization. (Python, GCP)
- Built an automated pipeline to generate and publish OpenAPI documentation from code annotations; ran as a scheduled job (cron initially, later via GCP Cloud Scheduler), reducing manual documentation effort for affiliates. (Go, Python, JS, GCP)
- Automated CSV and PDF generation by ingesting upstream data for Account Managers. (Go, PHP)
- Implemented a batch-processing implementation for SQL operations. Cutting down data run times from 6 hours to under 1 hour. (83% efficiency gain). (Golang, PHP 8, MySQL)
- Partnered cross-team to triage and resolve production incidents, reducing downtime from 2–3 days to 5 hours.
- Built and maintained internal and partner-facing RESTful APIs using Test-Driven Development (TDD) to ensure reliability and decoupled, testable code. (Golang, Python, Bash, GitHub, Google Cloud Platform (GCP), Javascript, Typescript)

**FleetOperate** - *Full Stack Developer* - Winnipeg, MB

January 2020 – May 2021

- Launched initial products for shippers, drivers, and recruiters; supported 1,000+ daily shipments and high-volume customers using queue-based workflows for reliable high-traffic performance. (AWS DynamoDB, Amazon SQS, NoSQL)
- Improved filtering experience; increased key-shipment findability by 80%, boosting user satisfaction and engagement. (JS, TS, Angular 8/10/12)
- Mentored co-op students and new hires to help them onboard in a few days.
- Created the CI/CD pipeline for multiple services in AWS CodePipeline.

## PROJECTS

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### **Pantry: Food & Supply Tracking Tool**

- Created at the beginning of the pandemic for my family to use. We tracked what food and supplies we had and needed with a built-in barcode scanning to prevent overspending and spoilage. (PostgreSQL, Python, Flask, JS, Heroku)

### **Scrimmage: Local Pickup Soccer Organizer and Manager Tool**

- Facilitates effortless management of pickup soccer games through a dedicated web app, eliminating the need for app downloads. (MySQL, Golang, Angular 14, Vercel). Visit <https://scrimmage.fun>

### **Study Buddy: Language Learning Tool with AI**

- Web app built so that I could speak better in my native tongue with my grandparents. The app worked by creating a flash card system that could be accessed at home or on the go. (Vue3, Laravel, Perplexity API)

## EDUCATION

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**University of Manitoba – BSc. Sciences (Computer Science)**

June 2019

CSSLP

Ongoing