

Marcus Prgin

Marcusprgin121@gmail.com · (226) 808-9481 · LinkedIn · GitHub · MarcusPrgin.com

Education

University of Guelph

Guelph, Ontario | Expected April 2030

Bachelor of Computing, Computer Science Co-op (Honours)

Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Statistics I & II, Calculus I & II

Interests : Soccer, Competitive programming, hackathons

Experience

Software Engineering Intern | Enzuzo

Waterloo, Ontario

TypeScript, Node.js, React Router, SQL, Cloudflare

May 2026 – Aug 2026

- Built a full-stack sales dashboard using TypeScript, React Router that uses projected and current customer data to rank up sell opportunities, increasing monthly recurring revenue by \$50K
- Resolved feedback from customers and senior engineers by moving SQL queries into scheduled Cloudflare D1 roll ups reducing load and improving performance for customers
- Improved the ingestion pipeline using hourly cached data and falling back to validated data during API failures to prevent dataset corruption improving 30,000+ customer accounts
- Audited the customer facing analytics platform and identified query logic, caching, and testing issues that fixed 50+ reported bugs when resolved
- Closed a cross-tenant IDOR vulnerability by authorizing requested customer identifiers against authenticated account groups and adding regression coverage for unauthorized access

Projects

ResolvePR AI Code Security Agent | Go, Next.js, PostgreSQL, Google Cloud

May 2026 – September 2026

- Developed a full stack GitHub security Agent in Go, that analyzes GitHub pull requests for any security issues using Claude, where I parsed the AST to analyze only those functions that were modified in a particular Pull request, to improve and make suggestions to decrease security vulnerabilities
- Deployed the application across three managed cloud services, including Google Cloud Run for the containerized Go scanner, which eliminates manual server management and allows each layer to scale independently.
- Developed a Next.js dashboard (Google Cloud Run, Postgres) that handles webhooks securely and allows developers to filter issues by severity, ignore false positives, and receive real-time notifications about
- Cut false positives with a validation layer that rejects off-diff, low-confidence (below 87%), malformed, and duplicate findings before anything is posted to the PR
- Integrated GitHub App authentication, pull request web hooks, inline review comments, Check Runs, Neon PostgreSQL, and an LLM analysis pipeline into a single developer-security workflow critical findings

Distributed Rate Limiter | Go, Redis, Lua, Docker, k6

June 2026 – August 2026

- Built a distributed rate limiter in Go and Redis with sliding-window and token-bucket algorithms, cost-weighted requests, and hierarchical user, tenant, and global quotas
- Reduced Redis round trips by approximately 80% for sustained hot keys through centrally accounted quota leasing; benchmarked the allocation-free lease path at 45.7 ns/op, approximately 1,900× faster than the recorded in-process Redis-backed path
- Verified exact enforcement under contention by admitting exactly 100 of 500 concurrent requests at a configured limit of 100; developed 131 tests and eight benchmarks with 86–96% coverage across core packages
- Built a GitHub Actions CI pipeline with race detection, real-Redis integration tests, linting, benchmarks, Docker smoke tests, and Prometheus/Grafana observability exercised through k6 load scenarios

Technical Skills

Languages: Python, TypeScript, JavaScript, MySQL, Neon, C, Go, Bash, HTML/CSS, Cloudflare D1

Frameworks & Libraries: React, Next.js, React Router, Node.js, Django, Cloudflare, Google Cloud Run, Docker, Git, k6

APIs & Practices: Agile, code review, unit testing, integration testing, load testing

AI : Claude Code, Codex, Copilot, AI Agents, Prompt Engineering, AI powered automation