COLIN CAMPBELL

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SUMMARY

Hands-on engineering leader with 20+ years of experience building scalable platforms and guiding cross-functional teams. Proven track record of leading architecture initiatives, mentoring developers, and aligning technical decisions with business goals.

EXPERIENCE

EMERGESOURCE – Toronto, ON | 2025-present
Founder, Fractional CTO

- **Co founded** Turnstile stubs as CTO https://turnstilestubs.com
- **Co founded** Estatecalm property services as CTO https://estatecalm.com
- Early stage **advising & software architecture** for MamaMest https://mamamest.com
- **Launched** However Briefly minimalist news aggregator https://howeverbriefly.com
- **Launched** Hockey Humour site https://willtheleafswintonight.com

TUCOWS / WAVELO – Toronto, ON | 2015 – 2024
Director of Engineering, Software Architecture (2021 – 2024)

- **Prototyped and validated core system components**, reducing architectural risk and accelerating delivery timelines by **40%**
- **Designed and implemented event-driven architecture with Kafka**, processing **millions of messages daily** and enabling decoupled, fault-tolerant services
- **Developed and implemented an event gateway**, enabling product engineering teams to expose microservice events to subscribers while opting in to standardized platform tooling like **rate limiting, deduplication, synchronous APIs, and throttling**
- **Developed platform infrastructure using Terraform, OpenStack, and Nomad**, managing hundreds of nodes and reducing provisioning time by **70%**
- **Implemented zero-downtime CI/CD systems**, increasing deployment frequency by **5×** while cutting production incidents by **60%**
- **Migrated observability platform from Datadog to Grafana Labs**, delivering **$10M+ in annual savings** and improving visibility and alerting across all environments
- **Submitted SR&ED tax credit application**, securing **$2M in R&D credits** through strategic documentation of platform architecture and engineering efforts

Engineering Manager (2017-2021)

- **Led engineering teams for OpenSRS UI and Hover**, balancing delivery, technical direction, and team growth across multiple product lines
- **Modernized Hover's background job architecture using Sidekiq**, reducing job latency by **60%** and cutting failure rates in half
- **Designed Kafka-based reference architecture and migration plan**, enabling scalable, event-driven workflows that now support **millions of domain events per day**
- **Took a hands-on role coding and mentoring teams of 4–6 engineers**, accelerating onboarding and improving engineering confidence, contributing to **2+ internal promotions**
- **Shipped modern admin tools for Hover and OpenSRS**, reducing support team escalations by **40%** and improving admin response times
- **Migrated CI/CD pipelines from Jenkins to GitHub Actions**, reducing deployment times from **20 minutes to under 5**, and enabling **daily production deploys**
- **Crossed the 2 million domain milestone for Hover**, scaling systems to support continued **double-digit growth** in domains under management
- **Drove team alignment and delivery strategy**, improving roadmap execution through tighter integration and cross-team coordination

Engineering Team Lead (2015-2017)

- **Led ongoing engineering efforts to modernize the OpenSRS platform**, driving improvements across architecture, developer experience, and platform maintainability
- **Delivered key frontend components for GDPR compliance**, ensuring OpenSRS met evolving privacy regulations across global markets

- **Improved stability and performance of legacy SOLR search infrastructure**, reducing operational overhead and supporting platform longevity
- **Executed OpenSRS Domain Platform migrations**, supporting the seamless integration of over **2 million domains under management** from acquisitions including Melbourne IT and eNom
- **Led technical collaboration efforts with the Automattic team on the PHP OpenSRS toolkit**, enabling integration with wordpress.com and facilitating the sale of over **300,000 domains** from GoDaddy

FIRE ENGINE RED - Philadelphia, PA | 2012-2015
Senior Software Developer

- **Developed solutions to help America's colleges and universities connect with prospective students**, improving engagement and outreach capabilities
- **Played a key role in delivering a CRM-based admissions and alumni search solution**, streamlining recruitment and alumni relations processes
- **Leveraged Apache Solr to enable real-time, multi-user search functionality**, enhancing decision-making and user experience
- **Provided guidance and leadership in testing and refactoring legacy codebases**, improving code quality and maintainability

MEDICAL PHARMACIES - Pickering, ON | 2003-2012
Senior Software Developer

- **Led a focused team of 3 engineers dedicated to improving patient outcomes**, fostering innovation and collaboration
- **Pioneered first-to-market mobile pharmacy interaction tools**, enhancing patient engagement and care coordination
- **Delivered a patient-aware drug inventory system serving thousands of beds**, significantly reducing medication errors and pharmacy waste
- **Implemented a highly available data warehouse solution across 30+ retail locations**, improving data accessibility and operational reporting
- **Maintained operational redundancies with hardware and software**, ensuring system reliability and minimizing downtime

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SKILLS

Leadership

- Team Building, Leadership, Mentoring
- Programming, Architecture, Design
- CI/CD, Testing, Automation

Technology

- Python, JavaScript, Node.js, Perl, PHP, C, BASH, Django
- React, Vue, HTMX, Flutter
- PostgreSQL, MySQL, Redis
- Git, GitHub Actions, Jenkins
- Kafka, Terraform, Kubernetes, Docker, Nomad, Consul, Vault
- Elasticsearch, Kibana, Fluentd, Prometheus, Grafana
- Unix, Linux, OpenStack, DigitalOcean, AWS, GCP, Supabase

EDUCATION

Seneca College of Applied Arts and Technology

Computer Programming and Analysis
Certificates: Applications Developer, Internet Specialist

INTERESTS

- Captain of my "D" league championship hockey team
- Guitar player extraordinaire
- Lifelong vimrc tinkerer