

Stephen O'Neil

Full Stack Web Application Developer

10+ years frontend | 7+ years backend & DevSecOps

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- A lead developer & senior technical advisor, modernizing Canada's public health data platforms & infrastructure
- Previously lead developer on GC InfoBase (canada.ca/gcinfobase, github.com/TBS-EACPD/infobase), a React SPA client backed by a serverless GraphQL API

Resume

Lead Developer & Senior Technical Advisor (acting) | 06/2023 - ongoing

Data, Surveillance and Foresight Branch, Public Health Agency of Canada

- Contributed logging utilities to the branch's internal Django library, enabling standardized, enriched, and security policy compliant logs in both Google Cloud & Azure environments
- Lead infrastructure and security architecture design and implementation for the branch's first Kubernetes-based Django application deployment
 - Coordinated with project managers, application developers, and IT security to collect and track business and technical requirements, designing a corresponding architecture
 - Achieved a production-ready deployment and provided lessons-learned for future kubernetes use within the organization

Lead Developer & Technical Advisor | 01/2023 - 06/2023

Science and Parliamentary Infrastructure Branch, Public Services and Procurement Canada

- Advised on technical aspects of a branch-wide data policy refresh
- Triaged an inherited portfolio of ~20 projects in various stages from prototype to pilot
 - Identified 10+ retired or stalled projects to decommission, directly reducing cloud bills, maintenance burden, and potential risks & attack surface
 - Matured the remaining applications and infrastructure by eliminating manual deploy steps, implementing automated rollback capabilities, hardening configurations, etc.

Lead Developer | 09/2017 - 12/2022

Expenditure Management Sector, Treasury Board of Canada Secretariat

- Lead the GC InfoBase project beginning in Summer 2018; held responsibility for the project's technical direction, overall design, and for the team's developer talent
 - Iterated on and maintained the project's large React frontend
 - E.g. through gradual refactors to legacy code, brought the average turn around of routine site updates [from a baseline of 5 business days to an average of 0.13](#)
 - Built backend microservices to support the main application
 - E.g. built a versatile template based form service, used to collect, validate, store, and alert the team across multiple lines of in-app user feedback
 - Architected and administered infrastructure and operations for the project
 - E.g. transitioned hosting from tenancy in an external team's servers to cloud platforms & an in-house DevOps culture, taking deploy times from days to minutes
 - Developed tooling to multiply team productivity and reinforce best practices
 - E.g. implemented automated end-to-end WCAG 2.1 accessibility testing for CI
 - Championed code standards, review practices, testing, CI/CD, and working in the open
 - E.g. sold stakeholders on open sourcing the project; was awarded in recognition of the direct positive impacts one year later
 - Hired, supervised, and mentored junior developers and CO-OP students
- Built the data collection tool used for the centralized tracking of COVID-19 related expenditures across all government departments
 - Quickly learnt Python, Django, an existing internal platform's code & environment, and the business requirements; met the ambitious 3 month deadline provided for launch
 - Contributed lasting improvements to the existing platform's testing practices

CO-OP Student & part-time developer | 01/2015 - 09/2017

Office of the Chief Human Resources Officer, Treasury Board of Canada Secretariat

- Self-taught JS, HTML, CSS, and Git; developed the early HR data portions of GC InfoBase

Education

Honours B.Sc. Physics-Mathematics, uOttawa
2017, Cum Laude

Certifications

Google Cloud Certified - Professional Cloud Architect
(tinyurl.com/oneil-gcp-cert)

Languages

- TypeScript & JavaScript
- HTML ➤ CSS & Sass
- Python ➤ SQL
- sh / Bash / POSIX shells

Libraries &

Frameworks

- React ➤ GraphQL
- Lodash ➤ Jest
- React Testing Library
- Astro ➤ Axe-core
- NextJS ➤ Django
- OpenTelemetry

Tools & Software

- Git ➤ VSCode
- Linux ➤ Docker
- Kubernetes ➤ Kustomize
- PostgreSQL ➤ MongoDB

Platforms

- Google Cloud Platform
- DigitalOcean ➤ CircleCI
- GitHub Actions

Other Skills & Competencies

- Architecture ➤ Automation
- Application security
- Accessibility ➤ Mentorship
- Strategic leadership