

Bryan Paget

Kubernetes Platform Engineer · CKAD

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Summary

CKAD-certified platform engineer building sovereign data systems on Kubernetes. My path runs from bicycle mechanic in Toronto to architect of the production-grade AI infrastructure behind federal data platforms.

At Statistics Canada I built “The Zone”, the agency’s open-source data science platform — embedding SAS as a secure migration bridge to Python/R, applying LLMs to automated code translation, and delivering the Kubeflow and JupyterLab infrastructure behind reproducible ML workflows, all accredited under federal security standards (ATO). Now at Shared Services Canada (SSC), I’m deploying that platform onto Aurora, GC Cloud One’s new cloud-neutral, Terraform-provisioned Kubernetes platform — including security reviews and Tetragon (eBPF) policy work.

I lead teams with a human-centered style rooted in transparency and resilience, and I’m now applying that craft to technology that moves cities — bikeshare, micromobility, and smart urban transit.

Experience

Shared Services Canada (SSC) — Kubernetes Platform Engineer (CKAD)

Ottawa, ON · April 2026–Present

- Deploying “The Zone”, Statistics Canada’s sovereign data science platform, onto Aurora — GC Cloud One’s new cloud-neutral Kubernetes platform provisioned end-to-end with Terraform infrastructure as code across Azure and private cloud environments

- Supporting Aurora’s security posture through infrastructure security reviews and by authoring Tetragon (eBPF) runtime security policies for workload behavior enforcement

Statistics Canada — Data Platform Engineer, “The Zone” · Team Lead

Ottawa, ON · January 2022–April 2026

- Architect and technical lead for the agency’s sovereign data and ML platform on Kubernetes (“The Zone”), engineering open-source infrastructure (Kubeflow, JupyterLab, Docker) serving 50+ statistical programs
- Spearheaded embedding SAS within the platform, creating a critical user bridge and a secure, gradual migration path from SAS to open source (Python/R) that accelerated adoption and de-risked the modernization roadmap
- Led development of LLM-based automated code translation, further accelerating the institutional migration from SAS to open source
- Designed and deployed foundational Kubeflow and JupyterLab infrastructure for MLOps workflows, meeting stringent federal security standards and securing operational authorization (ATO)
- Mentored developers in GitOps, CI/CD, containerization, and ethical data handling; collaborated with security, privacy, and cloud teams to ensure TBS and SSC standards compliance
- Foundational work enabling the long-term vision of a federated data processing platform for all levels of Canadian government

Health Canada — Lead Data Scientist (Data Analytics Business Services)

Ottawa, ON · 2020–2022

- Led the design, development, and compliance of an AI-powered web application automating health inspection report classification, adhering to F.A.I.R. data principles and federal standards
- Built machine learning pipelines and data infrastructure for public health surveillance, consumer price analysis, and real-time analytics during the pandemic response
- Enhanced system security and data integrity while strengthening cross-functional collaboration across science, privacy, and IT teams

- Mentored junior data scientists and translated complex model outputs into clear, actionable insight for non-technical stakeholders

Statistics Canada — Data Scientist, Consumer Prices Division

Ottawa, ON · 2019–2020

- Automated Consumer Price Index (CPI) calculations with a self-developed AI clothing-classification model, reducing manual effort and errors
- Implemented secure, compliant data pipelines aligned with federal protection standards, ensuring audit-ready processes
- Automated manual Excel/PowerBI-dependent workflows in Python, laying the groundwork for the agency's platform migration
- Collaborated with economists on statistical methodology and data validation

University of Ottawa — Bioinformatics Programmer

Ottawa, ON · 2018

- Enhanced the Samplerees project's Markov chain Monte Carlo (MCMC) algorithm for gene genealogy sampling from SNP genotype data, improving accuracy and efficiency

Advanced Symbolics Inc. — Artificial Intelligence Intern

Ottawa, ON · 2018

- Contributed to a predictive model for the 2018 Ontario elections by integrating Canadian census data and Twitter sentiment analysis

University of Ottawa — NLP Research Assistant

Ottawa, ON · 2016–2017

- Developed a supervised learning model classifying rhythmic vs. non-rhythmic poetry, using web scraping to compile training data and a custom rhyme-detection algorithm; work published at FLAIRS-29

Cycle Solutions — Bicycle Mechanic

Toronto, ON · 2014–2015

- Moved into performance, mountain, and road bike systems at a smaller shop, taking on customer intake, diagnostics, and scheduling — at times the only mechanic on duty, responsible for the hardest repairs
- Grew from executing known procedures to diagnosing unknown failures (technician to engineer), and led customers through the “cheap repair” vs. “proper repair” trade-off — systems thinking made tangible

Urbane Cyclist Workers Co-Op — Bicycle Mechanic

Toronto, ON · 2009–2014

- Repaired and assembled commuter, folding, recumbent, and touring bikes for all-weather commuters, couriers, and cargo haulers at a worker-owned co-operative and hub of Toronto’s cycling community
- Learned exacting system-integration discipline — frame alignment, wheel building and truing, drivetrain and brake calibration — on thousands of city bikes
- Built a touring bike frame-up, including hand-built wheels: hard lessons in material limits that later translated directly into architecture — you cannot optimize your way out of a flawed foundation

York University — Neuroscience Research Assistant (Dr. Keith Schneider’s Lab)

Toronto, ON · 2013–2014

- Traced lateral geniculate nucleus (LGN) and thalamic reticular nucleus (TRN) masks on structural MRI sequences using FSLview, contributing to a probabilistic atlas derived from a sample of manually traced masks
- Developed efficient methods for brain region localization and tracing across coronal, sagittal, and transverse imaging views
- Gained hands-on neuroimaging and data analysis experience that motivated a shift from biology toward computer science and machine learning

Volunteer & Community

Bike Pirates — Volunteer Bicycle Mechanic & Instructor

Toronto, ON · 2007

- Taught bicycle maintenance skills to community members and helped build community through shared mechanical knowledge at Toronto's bike cooperative
- Promoted sustainable transportation initiatives and community workshops

Naka Ima Aikido Dojo — Construction & Maintenance

Toronto, ON · 2011–2013

- Contributed construction and physical labor in service of the martial arts community during the dojo's relocation and renovation

Education

- **MSc, Statistics** — University of Ottawa (2017–2019); thesis in natural language processing and statistical modeling
- **BSc, Statistics with minor in Psychology** — University of Ottawa (2014–2017); coursework in computer science (data structures, algorithms, discrete structures, programming) and computational statistics
- **Psychology & Biology (double major)** — York University (2012–2014); coursework in psychology, biology, chemistry, mathematics, and introductory programming
- **Diploma, Shiatsu Therapy and Traditional Chinese Medicine** — Acupuncture and Integrative Medicine Academy (2009–2011)
- **Foundation Studies** — OCAD University (2005–2006); colour and composition, drawing, time-based media, form and structure, and visual culture
- **Art History & Visual Studies** — University of Toronto (2004–2005)

Certifications

- **Certified Kubernetes Application Developer (CKAD)** — Linux Foundation, 2025
- **Microsoft Azure Fundamentals (AZ-900)** — Microsoft
- **Terraform Associate** — in progress (exam preparation)

Skills

- **Platforms:** Kubernetes, Kubeflow, JupyterLab, Docker
- **Cloud & Infra:** Azure, AWS, Google Cloud, Linux, CI/CD, GitOps, Terraform (IaC)

- **Runtime Security:** Tetragon, eBPF policy authoring, infrastructure security reviews
- **Languages:** Python, R, Golang, Bash, SQL
- **Data Engineering:** Reproducible workflows, data pipeline design, SAS migration, open data standards
- **Machine Learning:** MLOps, LLMs, model deployment, ML pipelines
- **Leadership:** Team mentoring, cross-functional collaboration, stakeholder communication, open-source advocacy, ethical data governance
- **Human languages:** English (native), French (elementary), Mandarin (elementary)

Interests

- Sustainable transportation & urban mobility
- Open-source software
- Martial arts (Aikido, Wing Chun, Brazilian Jiu-Jitsu, Muay Thai), yoga & meditation
- Bicycle mechanics & maintenance
- Digital privacy and security

Publication

- **Automatic Classification of Poetry by Meter and Rhyme** — FLAIRS-29 (2016)

Honors

- Swarten Memorial Scholarship, University of Ottawa
- Undergraduate Research Opportunity Program (UROP)