

# Antoine Boucher

SOFTWARE ENGINEER — PLATFORM AND COMPUTER GRAPHICS

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## Profile

Software engineer focused on cloud-native backends on Kubernetes and GCP, with GitLab CI/CD, Terraform, and hardened containers as the path to production. Works mainly in Java/Kotlin and Python across microservices, automated regression suites, and research-facing services, and supports DevSecOps-oriented delivery in academic lab settings. Master's in Information Technology Engineering (ÉTS), with practical experience in interactive graphics (OpenGL/C++, Blender).

## Core Skills

<b>Graphics / 3D</b>	OpenGL, C++, Blender
<b>Backend</b>	Java, Kotlin, Python, GraphQL, Microservices
<b>Frontend</b>	Angular, React, Vue
<b>DevSecOps / Cloud</b>	Docker, Kubernetes, Terraform, GitLab CI/CD, GitHub Actions, GCP, Azure, AWS
<b>Data / Storage</b>	PostgreSQL, MySQL, MongoDB, Redis, Kafka, Data Science, Business Research
<b>E2E / Testing</b>	E2E testing (Playwright, Selenium), JUnit, observability with ELK, Grafana, Prometheus
<b>Other</b>	Linux, Bash, Ansible, MCP, security-minded delivery
<b>Credentials</b>	AWS Certified Cloud Practitioner; QcES; AWS Cloud Quest

## Experience

### IMC2 – Institut multidisciplinaire en cybersécurité et cyberrésilience

Remote (Montréal, QC)

Research Assistant (Permanent Part-time)

Mar 2025 – Feb 2026

- Owned GitLab CI/CD and runners for research services on GCP; containerized workloads, operated GKE networking, and rolled out infrastructure with Terraform, [tightening repeatable cloud releases](#)
- Hardened Java microservices with JUnit and Playwright; promoted Android builds through GitLab into the Terraform-managed GKE environment, [raising pre-release coverage and aligning mobile with backend delivery](#)
- Shipped automated cybersecurity risk analysis across [1000+ risks](#) and [181+ threat categories](#) with weighted scoring, star-based prioritization, and an Angular triage UI so analysts [triage faster with consistent context](#)
- Technical Skills:** Java, Kotlin, Android, Docker, Kubernetes, Terraform, GitLab CI/CD, GCP, JUnit, Playwright, Angular

### Polytechnique Montréal

Montréal, QC (On-site)

Teaching Assistant, LOG8100 DevSecOps (Contract Part-time)

Sep 2024 – Jan 2026

- Built and maintained the GitLab workspace (repos, CI/CD templates, runners, workflows) for [~20 concurrent teams](#), [reducing admin friction during the term](#)
- Coached Docker and Kubernetes build, deploy, and debug under LOG8100 goals; anchored security with OWASP-driven examples, [connecting lecture theory to exploitable scenarios](#)
- Refreshed DevSecOps-aligned lab artifacts, graded practicals, and coached resubmissions, [improving submission quality and turnaround](#)
- Technical Skills:** GitLab, CI/CD, DevSecOps, Docker, Kubernetes, OWASP, Secure Coding, Linux

### École de technologie supérieure (ÉTS)

Montréal, QC (Hybrid)

Teaching Assistant (Contract Part-time)

Feb 2024 – Apr 2026

- [~150 contact hours](#) across labs, integrator support, and office hours on mobile/UX, integrator-project, and distributed-data tracks (e.g., TCH057, IND500, TCH099, GTI660, GTI320)
- Authored and refreshed SQL, MongoDB, Kafka, and PostgreSQL exercises with rubrics for IND500, GTI660, and related cohorts, [aligning assessments with learning outcomes](#)
- Unblocked integrator teams on architecture and backend/data; sustained Azure-backed course infrastructure and SCRUM coaching; kept mobile/UX and GTI320 sessions on track, [so students shipped end-to-end features](#)
- Technical Skills:** SQL, MongoDB, Kafka, PostgreSQL, Distributed Databases, Microsoft Azure, Android Studio, UI/UX, SCRUM

### IONODES

Laval, QC (Hybrid)

Cloud Developer (Permanent Full-time)

May 2023 – Aug 2023

- Designed a [three-tier Auth0 subscription model](#) for organization-scoped IoT access, gating product capabilities per tenant
- Shipped Sentry SDK integrations in C# with Serilog for structured production errors, [improving diagnosability for support and engineering](#)
- Deepened ONVIF and WebRTC streaming readiness at IoT scale; orchestrated Azure DevOps with feature flags and repeatable promotions, [de-risking releases](#)
- Technical Skills:** C#, .NET, Azure DevOps, Auth0, Sentry, Serilog, UML, Microservices, ONVIF, WebRTC

## Intact

Back End Developer (Co-op)

Montréal, QC (Hybrid)

Jan 2022 – May 2022

- Built signup-date-aware onboarding campaigns and enrollment API flows on legacy systems, accelerating time-to-active coverage
- Delivered Kotlin login and MFA APIs for client mobile apps while preserving policy controls
- Extended the ELK stack with Kibana dashboards and harmonized microservice error codes, shortening incident triage for operations
- **Technical Skills:** Kotlin, Spring Boot, GraphQL, MongoDB, Microservices, Docker Swarm, Jira, Kibana, SAFe

## Divine Essence (Union-Nature)

Web Specialist (Contract Part-time)

Dorval, QC (On-site)

Jun 2020 – Dec 2020

- Modernized the bilingual commerce site (FR/EN blog navigation, accessibility) and CommerceBuild SEO-oriented sales labels, improving UX and qualified traffic to product pages
- Implemented a custom Add-to-Cart API on CommerceBuild; fixed popup, banner, and grid regressions and integrated a 3CX chatbot, streamlining checkout and self-serve support
- **Technical Skills:** HTML, CSS, JavaScript, CommerceBuild, 3CX, SEO

## Power Go

Full Stack Web Developer (Co-op)

Montréal, QC

Sep 2020 – Apr 2021

- Delivered a Python/Django/Vue.js/PostgreSQL parser unifying XML, JSON, CSV, and Excel supplier feeds for inventory teams, replacing one-off scripts
- Integrated Facebook Shop and Marketplace APIs for catalog sync; implemented a CAD/USD exchange-rate service tied to inventory and effective dates, keeping cross-border catalogs aligned without double entry
- **Technical Skills:** Python, Django, Vue.js, PostgreSQL, MongoDB, JavaScript, Git, Jira, Full-Stack Development

## Wandrian

Full Stack Developer (Co-op → Part-time)

Montréal, QC

May 2019 – Jan 2020

- On the Italiarail stack with Railkey Tech, improved performance and UX, integrated Braintree, aligned ticketing UI to brand guidelines, and extended purchase APIs, stabilizing end-to-end bookings
- Rebuilt and expanded the Selenium E2E harness; built Django, Pyramid, and jQuery internal tools plus a currency-usage dashboard, catching UI regressions early and replacing ad hoc CS/finance spreadsheets
- **Technical Skills:** Python, Django, Pyramid, JavaScript, jQuery, Selenium, MongoDB, Git, Jira, Test Automation

## Algolux

Engineering Intern

Montréal, QC (On-site)

May 2017 – Aug 2017; May 2018 – Aug

2018

- Automated camera/ISP validation with Ansible, Linux/QEMU UEFI VMs, HDR Nexus 6 test imagery, and Flask REST for remote capture and display, shrinking manual validation loops
- Produced outdoor vision datasets via a ~12k-image capture/annotation campaign, Python RAW-color tooling, and rig control; supported QNAP-backed lab workstations, networking, and Linux/Windows servers for experiments
- **Technical Skills:** Python, C++, CUDA, OpenCV, Flask, Ansible, Linux, Windows

## Education

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### École de technologie supérieure (ÉTS)

Master's Degree, Information Technology Engineering

Montréal, QC, Canada

Aug 2023 – Apr 2026

- Thesis: couples GelSight-style tactile sensing with interactive real-time physics so wear updates friction and shifts texture-space coordinates as the surface geometry changes.

### École de technologie supérieure (ÉTS)

Bachelor's Degree, Information Technology Engineering

Montréal, QC, Canada

Sep 2018 – Apr 2023

- AlgoÉTS (ÉTS algorithmic trading club) — President; club infrastructure, web, and trading/data projects.
- **Academic focus:** software engineering, distributed systems, databases, and team-based integrator delivery through ÉTS labs and coursework.