

## Contact

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## Top Skills

Data Science  
Business Research  
Apache Kafka

## Languages

French (Native or Bilingual)  
English (Native or Bilingual)  
Spanish (Limited Working)

## Certifications

Certificat d'accomplissement  
Programme Québécois  
d'Entrepreneuriat Scientifique  
(QcES)

AWS Certified Cloud Practitioner

AWS Cloud Quest: Machine  
Learning

AWS Cloud Quest: Cloud  
Practitioner

AWS Cloud Quest: Serverless  
Developer

## Publications

Algorithmic Study of the Relation  
of Peaceful and Violent Subjects to  
Philosophy Using Wikipedia and a  
Python Crawler

Ray Tracing Engine

A 3D variant of Vogel's model to  
observe prime patterns in a spherical  
coordinate system

# Antoine Boucher

Montreal, Quebec, Canada

## Summary

I'm a software developer with a passion for creating websites, writing code, and maintaining open-source projects. I've been coding since I was 12 years old, starting with making flash games at an after-school program, and later moving on to develop websites, Unity games, Snapchat filters, and more.

## Experience

École de technologie supérieure

Chargé de travaux pratiques

February 2024 - Present (2 years)

Montreal, Quebec, Canada

- TCH057 Mobile Applications and User Experience (Winter 2024)
- IND500 Distributed Databases (Fall 2025)
- TCH099 Informatics Integrator Project (Summer 2024, Winter 2025, Summer 2025)
- GTI660 Multimedia Databases (Summer 2024)
- GTI320 Mathematical Programming: Patterns & Efficient Algorithms (Winter 2026)
- Created and updated lab content (SQL, MongoDB, Kafka, PostgreSQL) aligned with modern distributed data concepts.
- Designed and corrected lab assignments; provided detailed feedback and grading rubrics to ensure consistency.
- Supported students with debugging, architecture choices, and project integration (backend + data pipelines).
- Helped instructors update/test course infrastructure across cohorts (including Microsoft Azure where relevant).
- Guided teams on delivery practices and project execution (requirements clarification, milestones, SCRUM basics).
- Supported students during labs by answering questions on course concepts and assignments (mobile dev + UX fundamentals).

### **Research Assistant**

March 2025 - Present (11 months)

Montreal, Quebec, Canada

- Managing CI/CD pipelines with GitLab CI and GitLab Runners for end-to-end DevSecOps workflows
- Optimizing cloud-native systems on Google Cloud Platform (GCP)
- Developing Java microservices with robust unit tests (JUnit) and integration/E2E tests (Playwright)
- Containerizing services with Docker and deploying with Kubernetes, Terraform, and Nginx
- Creating a cybersecurity risk-scoring algorithm and an interactive risk-visualization UI (Angular)

### **Polytechnique Montréal**

Chargeé de travaux pratiques

September 2024 - January 2026 (1 year 5 months)

Montreal, Quebec, Canada

LOG8100 — DevSecOps : Opérations et Développement Logiciel Sécurisé

<https://www.polymtl.ca/programmes/cours/devsecops-operations-et-dev-logiciel-secur>

- Created and improved course/lab content focused on secure software delivery (DevSecOps).
- Set up and maintained the GitLab project structure for ~20 teams (repositories, CI/CD templates, runners/workflows if applicable), and managed permissions/access control.
- Assisted teams with Docker and Kubernetes fundamentals (containerization, deployments, debugging).
- Supported security learning with practical references to OWASP (common web risks, secure practices, and remediation mindset).
- Corrected practical assignments and provided technical coaching to unblock teams and improve deliverables.

GitLab · CI/CD · DevSecOps · Docker · Kubernetes · SonarQube · OWASP · Secure Coding · Linux

### **IONODES**

Cloud Developer

May 2023 - August 2023 (4 months)

Laval, Quebec, Canada

- Designed and implemented 3 tier subscription system organization based permission using Auth0 for the IoT platform.

- Developed Sentry SDK integrations in C to enhance logging with Serilog.
- Acquired knowledge on ONVIF, WebRTC

### Intact

#### Back End Developer

January 2022 - May 2022 (5 months)

Montreal, Quebec, Canada

- Created new campaigns based on the date new clients signed up, providing personalized experiences for our new clients.
- Implemented API endpoint logic for enrolling new clients on our legacy system, streamlining the onboarding process.
- Developed backend login and MFA API for mobile apps using Kotlin, providing secure and easy access for our clients.
- Improved our ELK stack by creating Kibana dashboards for effective error management and defined error codes in multiple microservices

### Power Go

#### Full Stack Web Developer

September 2020 - April 2021 (8 months)

Montreal, Quebec, Canada

- Utilizing Python, Django, Vuejs, and PostgreSQL, developed a versatile data parser capable of handling XML, JSON, CSV, and Excel data formats.
- Integrated APIs for Facebook Shop and Marketplace
- Implemented a currency exchange rate system for CAD/USD conversions for complete inventory system and date synchronization

### Divine Essence\_Union-Nature

#### Web Specialist

June 2020 - December 2020 (7 months)

Dorval, Quebec, Canada

- Redesign Blog In French and In English
- Custom Dynamic Sales Label for Search Optimisation on Commercebuild
- Teaching the Basic of HTML, CSS, Javascript
- Fixing Popup, Banner, Grid in CSS
- Custom Add to Cart call API for CommerceBuild
- Tech Support, Messaging Support Line
- 3CX chat BOT

### Wandrian

9 months

### **Full Stack Developer**

August 2019 - January 2020 (6 months)

Montreal, Canada Area

- Collaborated with the Railkey Tech team to optimize the Italiarail website.
- Assisted with Braintree Payment Support, ensuring smooth and secure transactions.
- Undertook a UI redesign to improve user experience and interface.
- Implemented an automated testing solution to streamline code testing and ensure the robustness of the website

### **Full Stack Developer**

May 2019 - August 2019 (4 months)

Montreal, Canada Area

- Utilized Python, Django, Pyramid, and JQuery to enhance the website and customer service tools.
- Created an analysis dashboard that enabled customer services to monitor currency usage effectively.
- Redesigned the ticketing frontend based on new design guidelines to improve user experience.
- Rewrote the infrastructure for Selenium end-to-end testing, optimizing the testing process.
- Addressed and fixed bugs to improve website functionality.
- Developed an API endpoint that facilitated ticket purchases.

### **Algolux**

#### **Algorithm Developer**

May 2018 - August 2018 (4 months)

Montreal, Quebec, Canada

- Automated deployment of a REST testing stack using Ansible (Linux + QEMU/UEFI) for HDR 10bpp ISP image validation.
- Built a Flask REST API to remotely control a MacBook display and a camera-arm capture workflow.
- Collected and prepared a ~12,000-image security-camera dataset (capture + Linux-based annotation pipeline).
- Wrote Python tools for RAW image color analysis and calibration support.
- Improved lab infra: organized networking, and set up a QNAP backup server for Ubuntu workstations/datasets.

### **Collégial International Sainte-Anne**

#### **Manager of the MakerSpace**

January 2016 - May 2017 (1 year 5 months)

Montreal, Quebec, Canada

Laboratory of Electronics and Software development 3D printer/VR/Electronics

- Ensured materials and tools were always available for users.
  - Assisted students with the use of 3D printers and VR equipment.
  - Helped in troubleshooting technical issues and guided students in their innovative projects.
  - 3D Printer Maintenance and Repair
  - Promoted innovation and creativity in digital fabrication and virtual reality.
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## Education

École de technologie supérieure

Master's degree · (August 2023 - December 2025)

École de technologie supérieure

Bachelor's degree, Information Technology Engineering · (September 2018 - April 2023)

École de technologie supérieure

Technological Academic Path, Information Technology · (September 2017 - May 2018)

Collégial International Sainte-Anne

Diploma of College Studies, Sciences pures et appliquées · (September 2015 - June 2017)

Collège Sainte-Anne

High School Diploma, Science · (September 2010 - June 2015)