Bruno Pettersen-Coulombe

Full stack Developer, B. Eng., Racing geek

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My multi-faceted professional experience and my fast learning made me a profesionnal with great adaptability. World record holder, author, coach: I'm a scientific mind in an athlete body. Addicted to caffeine and challenges.

SKILLS

Backend
Senior

API REST |API SOAP |Java |
Spring Boot |Javascript |Node.js |
Express |Python |PHP

Frontend
Intermediate

React |JQuery |HTML

DevOps
Intermediate

Deployment optimisation |CI/CD |
GitLabs |Helm/Kubernetes |Jenkins |
GitHub Actions |Docker |ELK Stack

Databases
Intermediate

Redis |NoSQL |SQL Server |Oracle |
PostgreSQL |MariaDB/MySQL

Scripting
Intermediate

Bash |Groovy |Powershell

SDET/QA
Senior

Cucumber |Gherkin |Rest Assured |
Selenium |HtmlUnit |Mockito |Spock |
JUnit |PHPUnit |Xray

Tools

IntelliJ |PyCharm |WebStorm |
Visual Studio Code |Visual Studio |
Eclipse |Git |Bitbucket |Jira |Maven |
Gradle |Nexus |Swagger

WORK EXPERIENCE

Feb 2024 - Jul 2024
Backend Developerat Rona

 https://www.rona.ca/

Building of 4 microservices with Spring Boot for Selling-Tools project

- Coding of Customer microservice (handling of Rona customers)
- Coding of Quotes microservice, extensible quotes handling system primarily use for custom doors/windows
- Coding of Rona's Reference microservice, a data reference service to connect to Rona's product database
- Coding of Message-Receiver, a Tibco Queue listening service to handle quotes updates (Quotes-ms) sent via XML files
- Implement API key authorization & Token appId authentication
- Implement XSS & Content Security Policy (CSP) protections
- Design & implement Cucumber scenarios/tests for all services

Oct 2023 - Jan 2024
DevOps Developerat Rona

 https://www.rona.ca/

Putting in place generic Gitlab pipelines for all Rona development teams

- Automatize DAST and DAST-API security scanning (all pipelines)
- Automatize NIST security flaws daily database download/update in artifactory
- Implement OWASP dep-scan library analysis to prevent security false to reach production systems (all pipelines)
- Put Wiremock stubbing capabilities with Helm to allow Postman component testing for Maven/Gradle pipelines
- Implement Cypress Front-end component testing for NPM/Yarn pipelines
- Work in completing pipelines for Maven, Gradle, Yarn, NPM & Go Module

Apr 2023 - Jun 2023

SDET Analystat National Bank of Canada

🔗 https://www.nbc.ca/

This mandate consisted of analyzing the efficiency of the team and proposing solutions to improve the speed of work. In particular, the potential gains of test automation was studied.

- Tested new AWS microservices to ensure compliance with legacy system
- Interviewd developers and testers to fully understand their tasks, challenges and slowdowns
- Analyzed bottlenecks, project context and automation costs
- Delivered a factual analysis on test automation relevance

Aug 2022 - Mar 2023

SDET Technical Leadat National Bank of Canada

🔗 https://www.nbc.ca/

Building a new testing framework from scratch for the Swift payment infrastructure.

- Reduced the number of lines of code by 85% compared to legacy framework
- Separated the test framework into several JAR deployed in Nexus: an API client for the main application (APS) and a payment injector to push payments in APS via Kafka Queues
- Refactored the code using Unirest, Lombok, Jackson, Prowide Software libraries (Prowide core and Prowide ISO 2022), object inheritance, dependency injection, and Gherkin
- Implemented Fail-fast principle and detailled logs
- Trained 30 people within the SDET team via 7 presentations on the new test architecture

Mar 2022 - Jul 2022

SDET Developerat National Bank of Canada

🔗 https://www.nbc.ca/

Test automation for the Bankmate service, a Swift MT to MX(XML) format converter.

- Developed about 30 different tests to validate the behavior of Bankmate
- Revised existing Bankmate test code to eliminate code duplication
- Rewrited Bankmate legacy tests using Gherkin structure
- Assisted my colleagues on the technical side

Oct 2020 - Feb 2022

QA Developerat National Bank of Canada

🔗 https://www.nbc.ca/

Test automation for the ICOP application and microservices

- Upgraded the test velocity from 1 manual test/hour to 400 tests/hour
- Developed ~120 automated tests for the ICOP application using the Selenium library
- Developed ~60 automated tests for ICOP microservices (ISRPB/IIAPB/CAOPB) via Rest Assured
- Set up 4 Jenkins pipelines for the execution of the automated tests
- Documented pipeline execution, code structure and maintenance guidance
- Trained new employees on National Bank's Test Automation Framework

Jan 2019 - Sep 2020

DevOps Developerat Société Générale

🔗 https://www.societegenerale.com/

Having worked on the production support as a Application support Analyst and automated a lot of things there, I was recruted as a DevOps Developer as a full time intern employee.

- Refactored the Eztops to GMI accounting service, with monitoring and automated alerts
- Deployed and configured of an ELK-based monitoring solution for 2,000 Autosys processes
- Developed Powershell scripts to communicate between APIs (Elasticsearch and Autosys)
- Managed deployments
- Writed dynamic documentation scripts (Do-nothing scripts) to improve bug investigation time

Aug 2016 - Dec 2018

Application Support Analystat Société Générale

🔗 https://www.societegenerale.com/

My first mandate after graduation to support several global finance applications. Lots of low-hanging fruits so having a development background, I took the opportunity to improve things.

- Reduced code/repos for financial reports production from 20 to 1 by developing a configurable, automated report producer using Groovy and Autosys scheduler
- Configured and deployed a software and pod monitoring solution based on ELK
- Planned the migration from the OnPrem Newtops to the Cloud based, modernized Eztops
- Automated manual daily monitoring checks and alerts (by email)
- Developed bash scripts to automate fixes for recurring operations failure
- Supported production operations

Sep 2014 - Apr 2015
Developerat Constellio
🔗 https://www.constellio.com/
Constellio was a small business (growned and sold since) with a clientele that was mainly governmental. I built out a modular JavaScript web client for their flagship product.

- Deployed on the Government du Québec website, sucessfully handling 100,000 requests/day
- Developed unit and integration tests for their product, using Mockito and JUnit

Jan 2013 - May 2013
Junior Developerat Equisoft
🔗 https://www.equisoft.com/
Implemented Entity framework on their subscription management software.

- First experience as a professional software developer

Apr 2014 - May 2014
Web Developerat Solutions Technologies
🔗 https://www.stinfo.ca/
Following a loss of code following a virus, Solutions Technologies contacted me to restore their tailor-made and configurable e-commerce shopping cart module for their various customers.

- Developed the backend of a modular e-commerce shopping cart based on Magento

Aug 2013 - Dec 2013
Web Developerat Vice Longboards
The small longboard manufacturing company asked me to create their portfolio website

- Applied learnings from GTI350-Design and evaluation of graphic user interfaces

Sep 2011 - Oct 2011
Web Developerat FJB Casting
🔗 https://fjbcasting.ca/
FJB casting needed a module for uploading and cropping photos of models for her bank of extras. The extras could then manage their images themselves on the Figuration Julie Breton website, a task that was cumbersome for the owner of the company.

- Integration of a cropping module and image upload in PHP/Javascript

May 2011 - May 2011
Web Developerat Heritage Software Inc.
Heritage Software needed a drag-and-drop file upload module for their website.

- Integrated a file upload module in PHP/Javascript

Feb 2009 - May 2009
Web Developerat Les 2 Photographes
🔗 https://www.les2photographes.com/
A graphic designer approached me after having accepted a mandate beyond his competence. The goal being to deliver a transactional photographs website. I was proud to have been able to deliver the mandate on time despite the end of the school semester and very tight schedule.

- Built a recursive algorithm to display available images on the website
- Automated the production of image snippets with watermarks to display available images
- Secured the full size images so that they were inaccessible to the public

- Automated the payment via PayPal API
- Automated email sending with attached full size images once payment was made

Jan 2010 - May 2010
Web Developerat CADS Informatique

⬈ https://cadsinformatique.com/

First professional mandate (intership) which was an opportunity for me to gain experience in a direct relationship with various clients. I gained experience with both front-end and back-end.

- Redesigned a citizen news website based on Wordpress
- Built a custom CMS
- Designed a website for an elderly residence

EDUCATION

2014 - 2016
Minor Entrepreneurshipat École de technologie supérieure

Major courses: ENT201 - Business financial management |ENT202 - Introduction to entrepreneurship |ENT601 - Marketing and sales | ENT602 - Company management

2010 - 2016
Bachelor Software Engineeringat École de technologie supérieure

Major courses: LOG120 - Software Design |LOG210 - Object-Oriented Design |LOG240 - Conception et évaluation des interfaces utilisateurs | LOG320 - Data structures and Algorithms |LOG330 - Software Quality Assurance |LOG410 - Needs analysis and specifications | LOG430 - Software Architechture |LOG515 - project management |LOG530 - Software re-engineering |LOG635 - Artificial Intelligence Algorithms | LOG645 - Parrallel Computing |LOG660 - High performance Databases |LOG735 - Distributed Systems |LOG791 - Special projects | LOG792 - Graduation project in software engineering |GTI350 - Design and evaluation of graphic user interfaces (GUI) | GTI610 - Telecommunication networks |GTI619 - System Security |CHM131 - Chemistry and materials |ING150 - Static and Dynamic Physics | ING160 - Thermodynamics and Fluid mechanics |PHY332 - Electricity and Magnetism |PHY335 - Physics of electromagnetic waves | MAT145 - Differential and integral calculus |MAT210 - Logic and discrete mathematics |MAT265 - Differential equations | MAT350 - Probability and statistics |MAT472 - Linear algebra and space geometry |COM110 - Communication methods | GIA400 - Project profitability analysis |TIN501 - Environment, technology and society

2007 - 2010
DEC Computer Scienceat Cégep André-Laurendeau

Major courses: 201-420-AL - Mathematics and Computer Science |420-102-AL - Algorithms and programming I | 420-111-AL - Computers and technical support |420-121-AL - Internet and multimedia |420-201-AL - Algorithms and programming II | 420-211-AL - Operating systems |420-221-AL - Web Apps I |420-301-AL - Object Oriented Design and Programming I | 420-311-AL - Network architecture |420-321-AL - Web Apps II |420-331-AL - Systems modeling and UML |201-421-AL - Statistics | 420-401-AL - Object Oriented Design and Programming II |420-411-AL - Internet Services and Security |420-431-AL - Implementation of databases | 401-420-AL - Enterprise Computer Systems |420-501-AL - Programming user interfaces |420-502-AL - Quality Assurance and Maintenance | 420-521-AL - Multi-Tier Application Project |420-531-AL - Integrated Database Tools I |420-631-AL - Integrated Database Tools II

CERTIFICATES

2023-11-05
AWS Certified Cloud Practitioner
Amazon Web Services Training and Certification

⬈ https://aws.amazon.com/certification/exams/

2023-07-21
Start with React
OpenClassroom

⬈ https://openclassrooms.com/fr/courses/7008001-debutez-avec-react

2023-07-05
Create a Java Application with Spring Boot
OpenClassroom

⬈ https://openclassrooms.com/fr/courses/6900101-creez-une-application-java-avec-spring-boot