

Sébastien Oger

Data Analyst — Industrial Quality & Laboratory



Montreal, QC

Portfolio: sebastienoger.ca · linkedin.com/in/sebastien-oger-49009382 · github.com/WealthFinPilot

SUMMARY

Quality Manager at an ISO/IEC 17025-accredited metallurgical testing laboratory; moved from a technical role to ownership of the quality system and built its data tools: dashboards, Excel/VBA automation, a CAPA tool. Self-taught developer of business solutions for over five years, alongside a full-time job; Microsoft-certified Power BI Data Analyst (PL-300). Delivered a housing market analysis from public data to a Power BI report. Brings to data analysis what six years of running a quality system teach: rigour about where a figure comes from, traceability, and catching drift before the complaint arrives.

SKILLS

Data & BI: SQL, Power BI, dimensional modeling (star schema), data quality and governance, dashboards and KPIs, control charts (SPC), Pareto analysis

AI-assisted development (Claude Code): Python, DAX, dbt, PostgreSQL, Docker, Git

Quality & laboratory: ISO/IEC 17025, ISO 9001, accreditation assessments (SCC), nonconformity and CAPA, root cause analysis (Ishikawa, 5M, 5 Whys), document control, metrology, proficiency testing, ASTM, CSA and ASME standards

Automation: Advanced Excel and VBA, self-hosted n8n, Notion, REST APIs and webhooks

CERTIFICATIONS

Microsoft Certified: Power BI Data Analyst Associate (PL-300) · June 2026

Microsoft Certified: Azure Data Fundamentals (DP-900) · July 2026

Microsoft Certified: Power Platform Fundamentals (PL-900) · August 2026

LANGUAGES

French: native · English: advanced reading, writing and listening; functional speaking

PROFESSIONAL EXPERIENCE

Canadian Materials Testing Bureau (CMTB) · Montreal, QC · 2021 – Present

Metallurgical destructive testing laboratory, ISO/IEC 17025-accredited (SCC) · Founding team member

Quality Manager · 2025 – Present

Laboratory Supervisor · 2022 – 2024

Quality Supervisor · 2021

- Developed dashboards and KPIs to monitor the validity of test results: interlaboratory proficiency testing follow-up and deviation control.
- Designed Excel/VBA automation workbooks for laboratory and quality system operations.
- Developed an end-to-end CAPA tool and standardized nonconformity handling: root cause analysis (5 Whys, Ishikawa), actions with owners and due dates, evidence, versioned reports with an approval workflow, Pareto trend reviews and effectiveness checks.
- Led 6 Standards Council of Canada (SCC) accreditation assessments from 2021 to 2026, including 4 full on-site and 2 remote surveillance assessments: no major nonconformity, scope maintained at every decision.
- Led the ISO/IEC 17025 reaccreditation through the laboratory's full relocation in 2021 (new site, equipment transfer, requalification): scope maintained.
- Verified 7 accredited ASTM methods (E8, E23, E415, E1019, A370, F606, E18).
- Built out every component of the quality system: document control, calibration and metrological traceability, risks and opportunities, management review, customer satisfaction and complaints.
- Performed destructive mechanical testing, chemical and microstructural analysis; wrote test reports, designed the laboratory's test report templates and provided technical client support.
- Trained technical staff and ran annual competency assessments.

SGS Canada · Montreal, QC · 2017 – 2020

ISO/IEC 17025-accredited testing laboratory, ISO 9001 and ISO 14001 certified

Metallurgical Technologist · 2017 – 2020

- Performed mechanical testing (tensile, impact, hardness) and welder and welding procedure qualification to ASTM, CSA and ASME standards.
- Sole operator during the pandemic: kept production at 100%.

Chaire des composites à haute performance (Polytechnique Montréal) · Montreal, QC · 2012 – 2013

Composites Laboratory Technician (R&D internships) · 2012 – 2013

MBDA France (EADS) · Le Plessis-Robinson, France · 2010 – 2011

Embedded Electronic Systems Technologist · 2010 – 2011

DATA PROJECTS

Montreal Housing Intelligence · Personal project · sebastienoger.ca/projets/montreal-housing · 2026

Montreal housing market analysis: where can a first-time buyer still afford to buy on the island of Montreal?

- Designed and built, with AI assistance, an unattended weekly data pipeline: 9 public datasets from 4 publishers, including 29 PDF reports parsed with no human intervention; PostgreSQL and PostGIS on Docker in three layers (raw, intermediate, marts), dbt transformations, n8n orchestration with failure alerts.
- Enforced data quality with 495 automated tests and 5 quality gates, each proven by a deliberately planted defect; every report metric recomputed by an independent script.
- Built a 4-page Power BI report with 3 maps on a 17-table star schema; DAX what-if parameters (income, down payment); mortgage chain recomputed in DAX, matching the database to the cent.
- Analyzed home affordability across 541 census tracts and 29 quarters: the median price-to-income ratio would have misled, improving by 4.5% from late 2021 to late 2023 while a rising qualifying rate cut the share of affordable tracts from 82.8% to 56.3%.

Quality Control by Data · Personal project · sebastienoger.ca/projets/quality-control-by-data · 2026

Tracking the accuracy of an optical emission spectrometer by measuring certified reference samples.

- Rebuilt the Excel/VBA drift-control tool as a web app, with AI assistance: algorithm cross-checked against the original workbook, data anonymized; control charts (z-score, $\pm 2\sigma$, $\pm 3\sigma$) across 13 elements over 23 months.
- Isolated the calculation engine, covered by 66 automated tests that replay the original workbook's values.

Materials Explorer · Personal project · sebastienoger.ca/projets/materials-explorer · 2026

Identifying a steel grade from its chemical composition, without a slow, operator-dependent manual comparison.

- Built a web tool with AI assistance, based on weighted chemical similarity: 386 reference grades, 18 elements weighted per steel family, compliance checked against 330 standardized grades.
- Automated identity test: each of the 386 grades matches itself; 21 composition ties documented.

QMS Platform — Notion × n8n · Personal project · sebastienoger.ca/projets/quality-management-system · 2025

Centralizing the quality system of an accredited laboratory with no IT department or software budget.

- Designed 38 linked Notion databases in 9 hubs around a single fact table, with 26 n8n automations covering 6 end-to-end processes; ~300 hours of development over 5 months.
- Presented the business case to management, then to the teams: 7 risks with mitigations, 3 costed scenarios, a projected return of ~4 to ~8 times the annual cost; platform not deployed, for budget reasons.

WealthFinPilot · Personal project · sebastienoger.ca/projets/financial-management-tool · 2024

Personal finance tool that keeps data on the local machine and stays fully editable.

- Built an Excel/VBA application in monthly use: 23 VBA components, CSV import with guided categorization, quarterly variance tracking, retirement projection across 3 scenarios; ~200 hours of development.

EDUCATION

Databases and SQL for Data Science with Python (IBM) — Coursera · ~18 h · May 2026

Microsoft Power BI Data Analyst Professional Certificate (8 courses) — Coursera · ~187 h · April 2026

n8n — Level 1 and Level 2 courses · 8 h · 2026

Graduate Diploma (DESS) in Mechanical Engineering — Polytechnique Montréal · 2015 – 2017

Master's Degree in Advanced Materials and Management (with honours) — Cnam (Paris) / Université Paris-Sud · 2011 – 2013

Professional Bachelor's Degree in Aeronautical and Space Structures — Université Paris 10 · 2010 – 2011