

Florent Bouchy

Senior Solution Architect & Digital Implementation Lead

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With over 18 years of experience, I am a seasoned IT consultant and solution architect specializing in digital transformation, ERP implementation, and systems optimization. Skilled in business analysis, project management, and full-stack development, I have spearheaded successful projects for clients mostly based in the Greater Montreal area with an international presence. My expertise, channeled through holistic vision and thinking, has guided organizations through significant digital transformations, resulting in streamlined operations and improved business outcomes. Also available as a Fractional CIO / CTO / CDO.

Work Experience

Holistinformatics

IT&IS Consultant / Digital Implementation & Full-Stack Business Systems Optimization - Freelancer for 13+ clients

Laurentides & Montreal, QC, Canada • Jan 2013 - Present

- Lead or take over implementation projects for various IT systems, combining multiple roles through holistic vision and thinking (worked on 35+ projects, leading 20 of them)
- Guided hundreds of CxO, managers, and employees through the digital transformation of their business operations, improving capacity, efficiency, revenue and security.
- Performed business & systems analysis, integration, architecture design, process optimization, data migration, and configuration
- Provided project management (20+projects), training, support, administration, and development services as needed, eventually earning a Trusted Advisor role
- Interfaced with 30+ external partners and managed integration automation with external modules through REST APIs and various connectors
- Developed 50+ custom software tools and reports for operations management and financial analysis
- Helped create 20+ new roles and jobs, interviewing and selecting candidates for client growth
- Designed, executed and rescued multiple Digital Transformation projects, from Phase 0 preparation, to ERP and Partner selection, to Phase 1 implementation, to Phase 2-3 increments in CI/CD

Education

Ph.D, Computer Science in Formal verification of infinite systems (model-checking)

École Normale Supérieure de Cachan (Paris-Saclay)

Paris, France

Oct 2006 - Nov 2009

M.Sc, Engineering in Computer Science and Industrial Systems + Research in AI, Classification, Scheduling

Polytech'Tours, Université de Tours

Tours, France

Sep 2002 - Sep 2005

Skills

Value-Added Leadership

- Value Proposition mixing technology, innovation, purpose and efficiency
- Communication and deep understanding of technical requirements and solutions from cross-functional teams and translation to/from executive management language
- Holistic handling of complex systems with dependencies and interconnections
- Governance and Change Management advocate/proponent

Business Process & Project Management

- BPMN Documentation
- Project & Program Management

- Successfully delivered implementations and solution architecture for diverse clients including Lion Electric, Major Wire, CRIM/Luqia, Zayat Aroma, Crudessence, Centre EauVie, Henri&Wolf, Kokoala, Croque Paysage, Kiné-Concept/Guijek/ASOQ, IESN, DGE and various other solopreneurs for website and domain migrations
- Developed transformation tools, launched data cleansing projects, and created connected tools for R&D prototype definition for high-complexity configurable products
- Started offering consulting services and got constant referrals for over a decade, without any marketing or prospecting

Principal Solution Architect (Consultant) for CRIM / Luqia

Montreal, QC, Canada • Feb 2026 - Apr 2026

(example contract as Holistinformatix)

- Conducted comprehensive solution architecture review for a new government-supported platform promoting continuous learning to meet changing labor market needs
- Validated conceptual architecture including guiding principles, capabilities, domains, interactions, flows, integrations, and dependencies
- Validated proposed technology component architecture covering application, integration, data, IAM, observability, resilience, and operations, including AI, ML and microservices
- Reviewed and improved implementation approach including phases, milestones, sequencing, prerequisites, and alignment with organizational constraints and standards
- Supported high-level effort assessment (order of magnitude) including assumptions, complexity, risks, key resources, and main workstreams
- Guided cybersecurity and compliance considerations by design ("security by design", "privacy by design") to inform structuring decisions of the technology roadmap
- Conducted review workshops with stakeholders working on the roadmap
- Evaluated target architecture across alignment, integration & interoperability, data governance, operations, resilience & performance, and security dimensions
- Documented gaps, risks, and trade-offs with options, impacts, recommendations, and mitigation measures
- Contributed to delivery phase proposals including MVP, increments, and dependencies
- Delivered pragmatic, decision-oriented architecture review
- Provided comprehensive security-by-design guidance ensuring compliance with provincial government standards and Loi 25 (Quebec privacy legislation)
- Enabled informed decision-making on technology roadmap structuring for government-backed continuous learning platform initiative
- Influenced an enhanced data segregation policy to focus on actual microservice-based architecture, reducing Data Warehousing and favoring bulkhead pattern

- Governance
- New Product Introduction
- Process Optimization/ Reengineering
- Data Analytics
- Communication Skills
- Problem Solving
- Technical Analysis
- Continuous Improvement & Operational Excellence
- CMMI
- RACI
- Microsoft365 full suite
- Facilitation of Requirements Workshops
- Requirements documentation and form creation
- Scope negotiation
- Leadership in multi-departmental projects
- Stakeholder governance expertise

Finances Management

- R2R (Record-to-Report)
- GL
- EoP/EoY closing
- Interco & Consolidation
- Financial Statements
- P2P (Procure-to-Pay)
- AP
- Vendor management
- 2/3-way match
- Expenses
- O2C (Order-to-Cash)
- AR
- Customer management
- invoicing & CoGS
- Cash application
- Fixed Assets
- Bank Reconciliations
- FP&A
- Budgeting
- Forecasting

ERP Implementation Consultant / Senior Integrator & Solution Architect for Major Wire

Candiac, QC, Canada • Jun 2023 - Dec 2025

(example contract as Holistinformatics)

- Orchestrated and assisted the implementation and major upgrade of their ERP and custom applications
- Took over the twice-failed "Phase 1" project with expected go-live in 6 months, but actually needed a restart on several levels (Process Reviews, Fit/Gap Analysis, etc.) leading to 18 months until successful go-live
- Conducted comprehensive onboarding and analysis phase: onboarding to internal systems (80% custom), reviewing existing documentation, interviewing Power Users, and mapping current architecture, data flows, and integrations
- Managed data migration strategy including data cleansing, dynamic transaction mapping, and execution of import sequences via SQL, API, and native tools
- Guided configuration, parameterization, and testing plans while assisting in the revision of user permission matrices and group administration
- Provided ongoing support to Finance and Operations teams, resolving blockers and evaluating new feature feasibility
- Developed project roadmaps, prioritized feature backlogs, and produced detailed specifications for future phases
- Supported general IT operations including CRM integration, Jira ticket management, and exploration of auxiliary tools
- Visited plants in Candiac, La Prairie, Niagara, Belgium and coordinated effort between 6 plants spanning 9 hours in time zone difference
- Successfully rescued a mismanaged and unprepared digital transformation project that was thought of as a simple update, bringing the right level of best practices and tools adapted to the SMB size and low maturity
- Facilitated the shift from legacy over-customized ERP and manual Excel/Access processes to a unified modern ERP environment, improving data integrity, real-time visibility and user experience, while keeping custom logic edge where relevant
- Leveled the company maturity by implementing governance, selecting a successful Business Analyst also acting as Scrum Master, raising IT/IS accountability and project delivery standards via the use of Jira, creating a gating committee (CAB) for Continuous Delivery
- Worked in synergy with external Senior PM and OCM expert consultants
- Established a robust foundation for Phase 2 by eliciting and documenting clear requirements for advanced manufacturing features (inventory barcoding, MRP, lot tracking, dynamic scheduling)
- Enabled the internal team to manage post-go-live operations through targeted training, documentation revisions, and knowledge transfer

- KPI
- Inventory valuation
- Manufacturing cost analysis
- Project accounting & Resource planning
- Payroll
- Auditing
- CoA & Dimensional accounting
- Multi-Entity & Multi-Currency
- Tax Management
- Reporting & BI

Supplier Management

- Qualification
- RfQ
- MOQ
- Lead Times
- Alternate sourcing
- Contract Management
- Requisition-PO-Release- Reception-Inspection- Vouchering-Payment
- Multi-Site agreements
- ASN
- EDI
- Landed Costs
- Drop Shipping
- Kanban
- Consignment
- Safety Stock
- Subcontracting
- VMI

Quality Management

- Quality Control and Assurance for Vendor/Production/Client/ Internal Enterprise
- Root cause analysis
- FMEA
- PPAP
- OEE
- RMA
- Andon

ERP Implementation Manager / Senior Integrator & Solution Architect for Lion Electric

Saint-Jérôme, QC, Canada • Nov 2017 - May 2023

(example contract as Holistinformatics)

- Led digital transformation of operational software and processes for a client experiencing hypergrowth and going public via IPO/SPAC, bringing SOx and ITGC requirements mid-contract.
- Initial team of 5 Power Users (representing business processes of respective departments) with project Sponsor; structure grew to 10+ Power Users for subsequent phases
- Executed Phase 0: initial CPQ+ERP analysis and selection over 4 months, developing transformation tools and launching data cleansing projects, ensuring stakeholder alignment and requirements definition
- Executed Phase 1: monolithic "big bang" Go-Live over 12 months, replacing 3 obsolete and disconnected systems plus multiple Excel files and manual/paper-based processes (focus on inventory, BoMs and accounting)
- Executed Phase 2: delivered new modules and features in increments over 2 years while going through company implementation of Agile methodology and Scrum framework (Quality Control, WMS, MES, Multi-Site entities, integrations with CRM, PLM, projects for Field Service, TMS, CMMS, EAM, Forecasting, Sales Tax Management, Web Portals, etc.)
- Delegated responsibilities to internal team as ERP Product Owner and multiple ERP roles were filled (Administrators, Developers, Integrators, Architects, Business Analysts, Project Managers)
- Developed connected tools for R&D prototype and BoM definition for new high-complexity configurable products
- Created item creation systems with embedded custom logic (data validation, branching flow, ETL templates)
- Integrated external modules and applications through various connectors such as SOAP and REST APIs
- Focused on most complex integration projects after delegating bulk of responsibilities
- Ensured continuous delivery of system improvements until replaced by a 20-person internal team (from "one-man show" to "on-demand support / level 3-4")
- Selected, implemented, and scaled an ERP through multiple parallel projects over 5.5 years (8,500-hour collaboration), supporting growth from 80 employees in 1 building (20M revenue) to 1,400 employees in 18 buildings including 3 manufacturing plants and a dozen service centers (500M revenue)
- Grew IT department from 2 people to 50+, including training 20 people to inherit various consultant roles (analyst, project manager, admin, dev, architect, integrator, data wizard, process optimizer, tech support)
- Navigated change management and company growth through its evolving governance, software customization levels, and build/buy/reuse policies, providing solutions adapted to each situation accordingly

- Inspection
- Snag Disposition
- Change Request/Action
- Compliance
- Maintenance

Manufacturing Management

- MRP
- MPS
- Capacity planning
- Shop floor execution
- WO
- Routings
- Work Centers
- Labor tracking
- manufacturing models (MTS, MTO, ETO, CTO)
- Multi-level configurable BoMs (eBoM>mBoM>pBoM>sBoM)
- PLM integration
- ECO/ECM
- CPQ & complex product configuration
- Lot & Serial Tracking
- WiP
- WMS
- 3PL integration
- MES
- Multi-plant production
- Advanced Planning & Scheduling

Business Software Systems

- Infor CloudSuite Industrial / Syteline
- Odoo
- Oracle Forms / ApolloG4
- Oracle Apex
- Infor Factory Track / Shop Floor / Warehouse Mobility / Time Track
- Dassault 3DX / Enovia / Catia / Delmia
- Seagull BarTender
- Zebra scanners
- Maitre'D

Digital Transformation Lead & Full-Stack Business Systems Optimizer for Crudessence

Montreal, QC, Canada • Feb 2013 - Mar 2016

(example contract as Holistinformatics)

- Took over ERP implementation project and managed continuous improvement for over 3 years.
- Project rescue, damage control, feature development, debugging, reporting, etc. for a multi-activity company experiencing hypergrowth: main kitchen and inventory, 5 restaurants and 4 franchises each with their own boutique, ready-to-eat B2B distribution, internal delivery, online store and shipping, academy, events, etc. with sister company producing and distributing kombucha drinks.
- Raised the bar for quality of IT projects and Operations standards, establishing and documenting processes.
- Developed dozens of tools used daily by staff, fixing business processes so that data and analytics became much more dependable for CEO and managers, significantly increasing operational efficiency (inventory and recipes/BoMs accuracy and visibility, supply chain & logistics, cross-department coordination, data entry process, UX, etc.)

Polytechnique Montréal

Post-doctoral Researcher

Montreal, QC, Canada • Nov 2011 - Nov 2012

- Conducted feasibility study for avionic systems integration focusing on Integrated Modular Avionics (IMA) and Time-Triggered Architecture (TTA)
- Coordinated multi-entity R&D project involving PolyMTL, Bombardier, CMC/Esterline, CRIAQ, and ÉTS
- Wrote literature reviews and designed models for systems analysis
- Tutored graduate students on research methodologies and technical concepts
- Delivered comprehensive feasibility analysis for avionic systems integration applicable to aerospace industry
- Established collaborative framework between academic institutions and major industry partners (Bombardier Aerospace)
- Contributed to R&D project coordination across multiple organizational entities

CRIM / ASYD Lab

Post-doctoral Researcher

Montreal, QC, Canada • Dec 2009 - Nov 2011

- Conducted R&D for Distributed Systems Analysis and Modeling using Formal Methods including test, verification, and model inference
- Collaborated on industrial projects with major companies including Bombardier Transportation, Siemens, GM, IBM, and SAP

- TouchBistro
- Omnivox
- Skytech Clara
- Populi
- ManageEngine
- osTicket
- Bugzilla
- Clio
- Dynamics 365
- Zoho
- Wordpress
- Drupal
- Joomla
- EasyPHP
- Wix
- Blogspot
- Sage50 Quantum
- Quickbooks
- Asana
- Trello
- Notion
- Google Workspace
- Microsoft365 Office (Excel / Teams / Sharepoint / PowerApps / Forms / Flows / Planner / Access / Loop...)

Programming languages

- SQL
- Python
- Javascript
- Google Apps Script
- Java
- C/C++/C#
- VBA/VB.NET
- SSRS
- Bash
- DOS
- HTML
- XML
- CSS
- Delphi
- PHP

- Wrote and presented technical reports to stakeholders and research community
- Contributed to business development initiatives for research center
- Applied formal methods to real-world industrial systems across transportation, automotive, and technology sectors
- Established collaborative relationships with Fortune 500 companies for research partnerships
- Produced publishable research outputs with practical industrial applications

LSV Lab / ENS Cachan & CNRS

PhD Researcher

Paris, France • Oct 2006 - Nov 2009

- Published peer-reviewed research articles in major journals and international conferences
- Conducted research on Logics and Models for Infinite Systems Verification
- Completed 96 hours of Computer Science courses, 72 hours of pedagogy training, and 24 hours of communication and theater courses
- Participated in academic research community and conference presentations in 7 European countries and Canada
- Earned PhD in Computer Science with specialization in Formal Verification and Specification, with the highest honors
- Published multiple peer-reviewed articles in major journals and international conferences
- Developed expertise in infinite systems verification applicable to complex software systems

Université Paris Dauphine

Part-Time Teacher

Paris, France • Mar 2007 - Jun 2009

- Taught Algorithmics, Graph Theory, Computer Science, Java, and OCaml to undergraduate students
- Prepared course materials, proctored examinations, and graded student assignments
- Synced curriculum and pedagogic approach with pedagogic team for consistent delivery
- Successfully delivered computer science curriculum to multiple cohorts of students
- Balanced teaching responsibilities with ongoing PhD research at ENS Cachan
- Developed pedagogical skills through structured teacher training program

- OCaml
- VHDL

Automation/integration tools

- Zapier
- IFTTT
- Workato
- Power Automate/PowerApps
- Make
- n8n

Methodologies

- Merise
- UML
- C4
- TOGAF
- Zachman

Data Management

- SQL and variants
- Access
- Excel
- PowerBI
- Modeling/design
- Querying (reporting/viewing & editing)
- Database Maintenance
- Master Data Management
- Segregation of Duties
- SOx
- ITGC
- Audit trails

Project Lifecycle

- Jira
- Confluence
- Asana
- Trello
- Planner
- Notion
- Scrum
- Agile

University of Montreal / GEODES Lab

Research Intern

Montreal, QC, Canada • Nov 2005 - Sep 2006

- Specialized in formal verification, specification, and model-checking techniques
- Used Spin model-checker and demonstrated its XSpin4 interface
- Conducted research on verification methodologies for complex systems
- Developed expertise in formal verification tools and methodologies
- Created demonstrations of model-checking interfaces for research presentation
- Contributed to GEODES lab research output on formal methods

Polytech'Tours / RFAI Lab

Developer & Researcher Intern

Tours, France • Jun 2005 - Aug 2005

- Designed and developed a benchmarking platform for Machine Learning classification methods
- Implemented classification algorithms including SFFS, k-NN, SVM, and Neural Networks
- Utilized DirectX 9 SDK, DirectShow API, GraphEdit, C++, C#, and XML technologies
- Delivered functional benchmarking platform for evaluating classification algorithm performance
- Gained hands-on experience with machine learning implementation and evaluation
- Developed skills in multimedia API integration alongside ML algorithm development

ESISAR / LCIS Lab

Developer & Researcher Intern

Valence, France • Jun 2004 - Aug 2004

- Migrated a Java simulator onto PIC microcontrollers using C and Assembly languages
- Designed and programmed a distributed embedded application with efficiency constraints
- Conducted R&D for PhD thesis on multi-agent systems with CAN network of smart sensors
- Successfully ported Java simulation to resource-constrained microcontroller environment
- Developed distributed embedded application demonstrating multi-agent system concepts

- OCM (Organizational Change Management)
- SPoC (Single Point of Contact)

Sectors

- Manufacturing (gas & electric buses and trucks, steel wire frames and mesh screens, aerospace, transportation, clothing, essential oils and holistic health products, gardening/permaculture)
- Food & Beverages (production, restaurants, catering)
- Distribution & Retail
- Education
- Professional Services

Enterprise Systems & Solution Delivery

- Enterprise Architecture & Solution Design: IT/IS architecture, system design, integration
- Solution Delivery & Implementation: configuration, development, deployment
- Business Analysis & Requirements Engineering
- Project & Program Management
- Applied R&D / Advanced Solution Prototyping

Soft Skills

- Business acumen
- Analytical thinking
- Complex problem solving
- Cross-functional communication
- Active listening & needs discovery
- Emotional intelligence
- Adaptability
- Ownership & proactiveness
- Delivery reliability & accountability
- Attention to detail

- Contributed to foundational research for subsequent PhD work on multi-agent systems

ACDI

Developer Intern

Valence, France • Jun 2002 - Aug 2002

- Designed and programmed a thin-client dynamic CRM website
- Developed using Delphi 6, SQL Server 2000, IIS 5, and Windows 2000 Advanced Server
- Delivered functional CRM website with thin-client architecture
- Gained experience in full-stack web development with enterprise database integration
- Completed internship project within standard development timeline

Publications

Dense-choice Counter Machines Revisited .

Jul 2014

Theoretical Computer Science, 542:17

This paper clarifies the picture about Dense-choice Counter Machines (DCM), a less studied version of Counter Machines where counters range on a dense, rather than discrete, domain. The definition of DCM is revisited to make it extend (discrete) Counter Machines, and new undecidability and decidability results are proved. Using the first-order additive mixed theory of reals and integers, the paper presents a logical characterization of the sets of configurations reachable by reversal-bounded DCM. We also relate the DCM model to more common models of systems.

<https://www.sciencedirect.com/science/article/pii/S030439751400334X>

Logics and Models for Verifying Infinite-state Systems .

Nov 2009

École Normale Supérieure de Cachan

"Logiques et modèles pour la vérification de systèmes infinis".

Thèse de doctorat / PhD Thesis, Laboratoire Spécification et Vérification, ENS Cachan, France, November 2009.

Keywords : Formal verification, Arithmetical logics, Counter systems, Timed Automata, Hybrid systems, Reachability.

<https://lsv.ens-paris-saclay.fr/Publis/PAPERS/PDF/FB-these09.pdf>

Languages

- French - native
- English - bilingual / proficient
- Portuguese (Brazil) - Intermediate
- German - intermediate (rusty)
- Spanish - beginner

Reachability in Timed Counter Systems .

Jul 2009

Elsevier Science Publishers

In Joint Proceedings of the 8th, 9th and 10th International Workshops on Verification of Infinite State Systems (INFINITY'06,'07,'08), volume 239 of Electronic Notes in Theoretical Computer Science, pages 167--178. We introduce Timed Counter Systems, a new class of systems mixing clocks and counters. Such systems have an infinite state space, and their reachability problems are generally undecidable. By abstracting clock values with a Region Graph, we show the Counter Reachability Problem to be decidable for three subclasses: Timed VASS, Bounded Timed Counter Systems, and Reversal-Bounded Timed Counter Systems.

<https://www.sciencedirect.com/science/article/pii/S1571066109001601>

Decomposition of Decidable First-Order Logics over Integers and Reals .

Jun 2008

IEEE Computer Society Press

Proceedings of the 15th International Symposium on Temporal Representation and Reasoning (TIME'08), pages 147--155, Montréal, Canada, June 2008. We tackle the issue of representing infinite sets of real-valued vectors. This paper introduces an operator for combining integer and real sets. Using this operator, we decompose three well-known logics extending Presburger with reals. Our decomposition splits a logic into two parts : one integer, and one decimal (i.e. on the interval $[0,1]$). We also give a basis for an implementation of our representation.

<https://ieeexplore.ieee.org/document/4553303>

Classification Methods Library .

Sep 2005

École Polytechnique de l'Université de Tours

"Bibliothèque de méthodes pour la classification".

M.ScEng "Master2 Recherche Informatique & Ingénierie", Tours, France, September 2005.

This report outlines the research, design, and programming work that has been achieved while creating a Classification Methods Library (CML). This project is being part of a continuous work, from Final Engineering Project to M.Sc. This CML is a library supplying methods for classification, especially for the pattern recognition field, and for benchmarking them. In addition, the CML is also a tool used for the handling and the comparison of such methods, using the GraphEdit application for the graphical part, DirectShow for the modular and interoperable part, and XML Schema for data specification.