

I'm a software engineer, wearing both manager and architect hats, with an extensive consulting and solution architecture experience. I excel at providing solutions that are solving the actual root-cause of the problem, while being logical in regard to the functional, technical and organizational structures. I'm personable. I live in Vancouver BC.

## Highlights

- Extensive **solution architecture** experience, for cloud-based (Accenture Fare Management Solution, MediaValet and BuildDirect) and on-premise (Greater-Toronto Area and Paris Transit Authority), on systems live and running.
- Implemented Lean (**agile** methodology) as the product **process** for a whole company with continuous integration and continuous deployment, and one-button push deployment to our live environment on a daily basis.
- **Managed** a 2M€ (>\$3M) management consulting project for Paris Transit Authority regarding the modernization of their fare management solution (8B€ in annual revenues). This resulted in a buy-in from the board of directors to start the 320M€ (>\$480M) investment we advised.
- **Directed** solution architecture on an internal Accenture project to migrate an on-premise fare management solution to Azure.
- **Recruited** and managed a team of more than 20 developers, then repeated that systematically for another company.

## Job History

3IE	CAAM	Accenture	Mediavalet,	BuildDirect
Paris – Software Engineer	Software Engineer	Paris – Consulting in public transit systems	Vancouver BC – Cloud service	Vancouver BC – eCommerce
Sept. 04 Jul. 05	5 Mon.	Jan. 2007 Aug. 2013	Dec. 2013 Apr. 2016	Apr 2016 Till now

## Projects

**BuildDirect – Software Development Manager since Apr'16:** BuildDirect is an online marketplace for home renovation products, such as flooring, roofing, appliances. I've been managing two engineering teams, specialized on community (authentication, profile, reviews...) and platform enhancement (public APIs, performance...):

- Globally helped providing **engineering drive** across the whole engineering team, and extinguishing fires. Helped pushing for clean engineering over shortcuts in various initiatives by supporting architects and performing code reviews, push for continuous integration, advocate for complete test coverage, better CI and source-control practices, standardization of APIs, team ownership of their technical platforms, use of standards, getting more focus, etc.
- Developed microservices on **Azure Webapps** using C# and Node.js. Created public API portal using **Azure API management**. Internal lobbying for use of Azure and PaaS.
- **Improved productivity** of an under-performing team by re-motivating its members. Did so by increasing focus and iterations, clarifying scope, and short/mid-term forecast, working on more useful and interesting features, decreasing pressure, becoming the team's interface to reduce interruptions, removing non-sense in process and number of meetings. Then **repeating** on a second team.
- Proposed and initiating the implementation of **organizational changes**, such as getting the teams to own their roadmap. Switched to a **kanban/lean process** with two teams, helped enhancing comfort by working with a process they like and think is practical, while improving efficiency by increasing iterations and focus.
- Upgraded **recruitment** process to hire better engineers, by focusing more on potential for junior engineers (test their ability to grab concepts) and good engineering practices on seniors (get a grasp of their base-engineering reflexes and their ability to coach juniors). Led technical recruitment.

BuildDirect

Project / Product management

**MediaValet – Software Development Manager from Dec'13 to Apr'16:** MediaValet is a startup building a SaaS solution **hosted on Azure** (Microsoft's cloud), helping marketing departments to store and organize pictures, videos, documents, sounds, and other kind of media assets in the cloud. In this role:

- Organized the product **development process** using lean / kanban (Agile) instead of Scrum, in order to reduce the time-to-market and throughput, and reduce work in process. Resulted in daily live deliveries to live environment and high reactivity. Adapted the QA process to support that process.
- Redefined **team structure** with cross-functional teams for the development process to sustain growth.
- Directed **architecture design** for the refactoring of the whole backend, advocating for clean, simple software engineering principles, and greater decoupling. Ended up in an architecture based on WebApps, Service Fabric and other PaaS tools (Azure SQL, Azure Search, Media Services, Blob storage, etc.)
- Participated to **product management**: select and refine new features that bring value to customers by actually understanding and addressing the problem it solves, segment features into smaller batches to help accelerating delivery, adapt functionality to match functional structure, prioritize work using business value, triage features, defects and incidents.
- Built team: **recruited and managed 20+ developers** on and offshore. Coached developers, performed performance reviews and career counselling process.
- **Development** of select features/enhancements in C# and Node.js (CoffeeScript) on Microsoft Azure (cloud services, web apps and Azure storage), using OOP and software engineering principles such as patterns and SOLID. Code reviews of senior team members.
- DevOps: **setup continuous integration**, continuous deployment using octopus/teamcity/Visual Studio Online, help support.

**Client: STIF. Project: Transit Units – Project Manager (Aug'11 to Aug'13):** opportunity-analysis of modernization of Paris Transit Authority's fare system (similar to Compass), then definition of that system (technical, functional and organizational), structure to deliver and operate it, estimation of a high level planning and estimates (4 years, \$480M), and preparation of the Request For Interest (RFI) in a highly political environment.

- Led the **solution architecture** with client actors, partners and solution vendors.
- Defined the **technical architecture**, re-grouping the 3 fare systems in place across the province, and including the core-definition of a backend system, and the multiple classes of equipment to support the various user scenarios, targeting to identify RFIs to prepare and calculate a rough estimate and planning.
- **Defined the fare structure** (a.k.a. the kind of products to include in the system, how to calculate the prices), analysis on transit usage, transfer between various fare products, and impact on revenue.
- **Defined the operations** of such a system: user experience, channels, impact on the transit flow (how people would walk in the corridors if they have to validate their card there), and definition of responsibilities.
- Defined **change management** scenarios: how to transfer users from their current paper-tickets to fare cards (~20M cards to emit), how to install equipment in space and security-constrained environments, how to train all the staff in time, etc.
- Defined the **organizational structure** of the system, for implementation (which entity emits the RFIs/RFPs supervises the work and takes the decisions) and for operation. Identified all the responsibilities of both implementation and operation. Performed an extensive risk analysis of every scenario. Pushed for moving from a model where our client was only distributing money through long-binding contracts (they are a public entity, it's not as odd as it sounds), to a model where the STIF would actually have operational control and last word.
- Drove the **client relation** and **business development** effort, signed 8 extensions to the initial contract, totalling 1.4M€. Got high client satisfaction thanks to the help we provided in getting the board's approval.
- **Managed** a team of between 2 and 5 really, really bright management consultants
- Worked on random fun activities like **PR** (realized a video to communicate the project to the public) and **public consultation** (prepared questions and scenarios for focus-groups and analyzed the results).

**Accenture offering: Universal Fare Management System – Lead Solution Architect (Apr'10 to Jul'11)**, transformation of an Accenture “on premise” solution into a SaaS platform, in order to address an entirely new customer segment.

- Led **business analysis** and **technical design**. My mission included enhancing the configurability of business rules, and adding innovative feature such as fraud-detection and automated error-recovery.
- **Developed** proof of concepts in C#, and using SQL StreamInsight (Microsoft's CEP), SQL MDS (Microsoft's MDM) and Ilog (Business Rules Management System),
- Supervised agile scrum delivery, **managing a team** of 2 consultants and 3 dedicated developers, + developers from a shared pool.

**Client: Metrolinx (Greater Toronto Area's transit authority). Project: PRESTO Card – Integration Lead (Jul'08 to Mar'10)**, implementation of a fare management system (similar to the Compass Card).

- Led internal and external **integration**. Main interfaces included an integration layer for front-ends (IVR, customer service application and commercial website), integration with the card manufacturer, integration with device vendors (which built devices on which you tap your card, or where you can reload it), and integration with Moneris for payments and storage of credit-card information.
- SME for **blueprinting** and design of integration with partners
- Led the **development** of integration layer using BizTalk and C# in a team of 10 persons on and offshore.
- Led our side of the early-**testing** effort with the main partner (device manufacturer).
- Participated to the onsite **go-live effort**.
- During the last 6 months of the project: analysis then **solution architecture** for change-requests, including business analysis, high-level design, fit-gap analysis, planning and pricing.

**Client: Translink (part of Netherland's ministry of transportation). Project: OV-Chipkaart – Integration software engineer, then integration lead (Jan'07 to Jun'08)**, implementation of a fare-card system at a country-scale in Netherlands.

- **Developed interfaces** in C# .net and BizTalk to card-manufacturing equipment, postal services, payment services, retailers, and internally to Dynamics AX. Developed a custom adapter for BizTalk with Dynamics AX to enhance integration (default connector was not really doing much at that point of time).
- **Groomed, trained then led 2 brilliant developers** into the ways of Microsoft BizTalk.
- **Test-automation** for both interfaces and commercial website.
- Customer-facing **functional design** sessions, to define the various workflows for user scenarios such as ordering a new fare-card, reporting a lost and stolen card, customer-service diagnostics. Sign-offs with clients on completion.
- **Technical training** of client staff.
- **Production assistance**, go-lives and data-migrations.

**At Crédit Agricole Asset Management (Large French Bank) – C# software engineer** developing operational tools for financial analysts (5 months)

- **Develop** a tool to automate optimization of financial portfolios.

**At 3IE (Engineering school R&D Lab) – Software Engineer** for 1 year, development of various applications for partner companies.

- **Develop** a software in C# to automate creation of applications based on simple workflows
- Develop a crossword game in J2EE

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## Soft skills

Bilingual French / English.

Balanced between business and technology.

Personable.

Pragmatic.

Excellent at conceptualizing.

Systemically organized.

Precisely understanding people's needs.

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## Education

2002-2007 – Master of Engineering in systems, EPITA, Paris.

Majored in IT & Software Engineering.

Graduated with Highest Honours.

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## Passions & Hobbies

Instructor to skiers with disability at Vancouver Adaptive Snow Sports (VASS).

Backcountry skiing. Mountain Biking. Hiking. Fencing. Reading. Sailing.

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## I appreciate a lot

Concision.

Separation of concerns.

Simple, structurally fit solutions.

Natural processes.

Clean architecture.

Smart people.

Self-organizing teams.

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## My credo

Always advocate for separation of concerns and decoupling, for iterating from basic to specific need, for applying engineering principles.

Understand the actual problem the product is trying to resolve. Fix root causes rather than symptoms. Militate to resolve constraints rather than work around them. Automate.

Make sure that we: finish tasks before starting new ones, work on small batches, and focus on planned activities.

Find the business justifications and leverage the strategy to take informed decisions. Design and prioritize depending on budget.

Gain knowledge of the solution at hands-on level.

Summary of what I have been working with, and can deem some expertise on:

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## Software Engineering

Separation of Concerns

OOP, OOD, design patterns (GoF and others), architectural patterns, UML

SOLID, KISS, etc.

Software architecture

Peer reviews, XP

TDD, DDD (knowledge of BDD)

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## Business Development

Solution architecture

Customer relationship development

Response to RFPs

Presentation of proposals to client

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## Strategy / Management Consulting

Organization definition

Organizational risk analysis

Sourcing strategy definition

Change management strategy on large city-scale project

Financial structure (Monte Carlo simulations)

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## Product Management

Product strategy definition

Target marketing segment identification

Roadmap shaping

Economic framework

Requirement analysis, feature and stories redaction

Feature pipeline/queue management

Version and configuration management

Defect priority assessment and triage

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## Technologies

C#, .Net, JavaScript, CoffeeScript, Node.js, Bash, PHP

Azure (Cloud services, web apps, storage, service bus, API management)

Continuous integration (Team city, Visual Studio Online)

Continuous deployment (Octopus, Visual Studio Online)

Git, SVN, TFS, CVS

Linux, BSD, Windows

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## Project Management

Budget tracking and reporting

Advancement tracking and reporting

Agile

Focused delivery (Daily delivery to live)

Jira workflow configuration

Planning

Test strategy definition

Risk analysis and management

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## Team Management

Team leading

Coaching

Performance management process

Recruitment

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## Process / Continuous Improvement

Product development flow

Theory of constraints

Lean, Kanban

Scrum

Separation of Concerns

Pomodoro

Ishikawa / Five whys