

# DOMINIQUE LOYER

## MBA, MASTER OF SCIENCE (MS), PH.D (c)

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🌐 <http://sherbrooke.co>

## ACADEMICS

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|------|---|
| 2017 | <b>Ph.D. – Ph.D in Machine Learning (now)</b><br><i>Université Laval, Québec</i>                      |
| 2016 | <b><u>M.sc – Master degree in IT management</u></b><br><i>Université Laval, Québec</i>                |
| 2015 | <b><u>MBA – Master in Business Administration (E-commerce)</u></b><br><i>Université Laval, Québec</i> |
| 2005 | <b><u>Bachelor degree in Finance</u></b><br><i>HEC Montréal, Montréal</i>                             |

## DATA SCIENCE AND MACHINE LEARNING SKILLS

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### DATA SCIENTIST

- Programming in R (R studio EDI) and Python (NumPy, SciPy)
- **Clustering** with KNN, K-Mean, Artificial neural network algorithms
- **text-mining on** Twitter and Facebook
  - Technology intelligence
  - Sentiments analysis
- **Big Data**
- Hadoop, Spark, NoSQL
- Exploratory data analysis
  - Univariate and multivariate analysis

### Supervised learning

- **Decision trees** (CART algorithm, random forests)

### Unsupervised learning

- Associations rules
  - Basket analysis
- Version control with **GIT**
- Tableau software and Python (Matplotlib) for data visualization
- **Semantic web** (OWL, RDF, FOAF, DublinCore, etc.) and **knowledge management**
  - **Finished number populating a Wiki on one of my MBA's course**
- **Project management** following PMBOK , **Gantt**
- ANOVA
- Time series analysis
- **MS Excel advanced functions** (**Power Pivot**, solver, pivot tables, etc.)

### PROGRAMMING LANGUAGES

- C, JAVA, PHP, Python, R, UnixShell, SQL, SPARQL, JavaScript

# EMPLOYMENT HISTORY

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**President and Data Scientist**

(<http://sherbrooke.co>)

**Sherbrooke Informatique** (My IT consulting Cie)  
**January 2014 until now**

Montreal, Sherbrooke

Sherbrooke Informatique has offered IT consulting services to customers such as : Canadian Armed Forces, Revenu Québec, BRP (Bombardier recreational products) to name a few.

We can also help you with a genuine business intelligence solution to forecast your future needs and help you with an insightful predictive modeling.

## **Our expertise :**

- Machine Learning
- Text-mining
- Clustering and random forest
- Deep learning (Big Data)

**IT CONSULTANT REVENU QUÉBEC (MANDATE)**  
**JANUARY-MAY 2016**

Advancing architecture Revenu Québec to a [service-oriented architecture \(SOA\)](#) within the Directorate General of treatment and technology.

**IT CONSULTANT FOR GSOIFC IN KINGSTON, ONT, CANADIAN ARMED FORCES (MANDATE)**  
**JANUARY-MAY 2016**

- A. Construction and development of explicit knowledge
- B. Select technology infrastructure support
- C. Strategy facilitation and motivation

Establish a new knowledge management card so the GSOIFC in logistics dimension may be more equipped to identify key knowledge in logistics processes.

Enrich the knowledge base with the Semantic Web vocabulary with prefixes and predicates (OWL, RDF, FOAF, Dublin Core, etc.).

**IT CONSULTANT FOR REVENU QUÉBEC (MANDATE)**  
**MAY -SEPTEMBER 2015**

Perform diagnosis of the "[Electronic online services](#)" within the Directorate General of treatment and technologies;

The PES is an opportunity to improve and facilitate communication with the agency. Using Web technologies also facilitates tax tasks of businesses and individuals. Revenu Québec must also provide via electronic services, an easy and effective access to quality information. PES should also be used in order to achieve the tax recovery targets and pursue prevention of tax avoidance efforts.

At Revenu Québec, the rate of electronic filing of tax returns is for the tax year 2014 to 81%, up 2% from the previous year. Ten countries had a higher rate of electronic transmission to 90% in 2009, with Italy and 100% Argentina.

### **IT consultant for Syntell Inc. In Québec (mandate)**

#### **January –May 2015**

The main purpose of this mandate was to determine whether the offer of human capital SYNTELL was relevant. In addition:

- Analysis of strategic capabilities SYNTELL;
- . Demonstrate how analytics-RH can reduce turnover by 10% to 20%;
- . Select 2 or 3 benefits to broadcast on the blog Syntell. The content to be short, relevant and captivating;
- . More emphasis on the benefits of analytics in human resources and the cost reduction and risk reduction for businesses;
- . Add functionality "in-messaging Product";
- . The "benchmarking" or sensitize leaders on the more strategic aspects of the analytical of some of these ratios compared to others that are only descriptive.

### College teacher (computer and business courses)

Cégep de Sherbrooke  
April 2011 – December 2012

Sherbrooke

Collège Lasalle  
May 2011 – September 2012

Montreal

Commission scolaire de la région de Sherbrooke  
February 2011 – December 2012

Sherbrooke

### **Operational Manager of a publicly-financed foster home**

CSSS des îles  
February 2007- august 2009

Magdalen's islands (1500 km from MTL)

- Manager of the human resources, financial and operational resources

### Financial services. Director

National Bank of Canada  
2006-2007

Magdalen's islands

- Budget I managed: 12 M\$ per year
- Objectives : 2,8 M\$ of new sales per year
- Retention of 1200 clients (500 anglophones)

### **PUBLICATIONS**

- [Classical guitar, a complete method, 2010 227 pages](#)[Finished number 1 populating a wiki on one of my MBA's course](#) LinkedIn posts (**top 1% most viewed, 18th position** on more than **20 000** in 2016) sur [LinkedIn Pulse](#) et and on my [blog](#)