

PROGRAMMING SKILLS

- Scripts: SAS (BASE, STAT, GRAPH, IML, Macros), R, Stata, Python
 - Databases: SQL, PL-SQL
 - Object oriented: C++, Java
 - Formatting: LaTeX, Power BI
 - Others: C, Fortran, HTML, PHP
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EDUCATION

Master's degree in computer science (machine learning) Université Laval, Quebec City	2007
Bachelor's degree in statistics Université Laval, Quebec City	2003
Certificate in computer science Université Laval, Quebec City	2004

WORK EXPERIENCE

Advisor, Data Science Desjardins, Levis	2016-Now
<ul style="list-style-type: none">• Examine and test the replacement solutions for the tools used to implement the Behavioural Rating and the Grant Rating.• Create, run, maintain and evolve replicators of models and strategies of Behavioural Rating and Grant Rating.• Validate and trigger the production of the Behavioural Rating.• Accompany the internal and external to Desjardins auditors for their controls on the Behavioural Rating validations.• Do the operational models and regulatory models backtesting.• Follow and produce the list of the Potentially Uninsured Loans.• Follow the Enterprise Credit Risk Rating System strategy.• Produce the reports on the Enterprise predelinquency strategy.• Drill down data to understand and explain the observed fluctuations in those reports.• Produce monthly the operational models scores and ratings replication.• Produce monthly the historical Loss Given Default conciliation.• Produce monthly the table that feeds Enterprise granting follow-up.• Send to and retrieve defaults from Global Credit Data.• Optimize and automate productions written in SAS.• Detect and investigate upstream the anomalies in produced or consumed tables.	

IT Consultant

2012–2015

Facilité Informatique, placed at Desjardins
General Insurances Group, Levis

- Process sponsor lists of potential clients with SAS for postal and telephone solicitation.
- Follow up on regular postal, telephone and electronic solicitation. Create Excel reports with SAS.
- Produce dashboards with SAS to show a refined segmentation of sales summaries.
- Draw winners of contests, using SAS, with the objective of increasing consumer traffic.

C++ and Fortran Programmer

2008-2012

SAFI Quality Software Inc., Quebec City

- Create graphical interfaces of three calculators with MFC in C++.
- Program in C++ a class that produces a report, with all the input and output data, and the graphics of a calculator in MHTML.
- Program the encoding of image files into base64.
- Use HOOPS (of Tech Soft 3D) in Fortran.
- Create Word 2007 documents in C++/CLI.

Stata Programmer (part-time)

2001–2004

Centre for International Studies and Cooperation and
Economics Department of Université Laval, Quebec City

- Program an interface in Stata software to:
 - calculate a statistic (a total, ratio, proportion or average) and the variance of its estimator depending on a population
 - draw samples
 - estimate the statistic along with the variance of its estimator.
- Use of strata, quotient method and two-stage sampling.

Consultant (part-time)

Autumn 2003

Université Laval, Service de consultation statistique, Quebec City

- Conduct interviews with students of various departments to answer questions about modelling and data analysis methods (Service offered under the Help for research students).

SAS Programmer

Summer 2003

Ministère des Ressources naturelles, de la Faune et des Parcs, Quebec City

- Do simple, multiple, linear and nonlinear regressions on dendrometry data with SAS.
- Use of proc nlin and proc model.
- Resort to weighted or robust regressions in many cases of unfulfilled assumptions.
- Infer totals and proportions valid for a wood species for the entire Quebec forest.

SAS Programmer (part-time)
Experts-conseils Statex, Quebec City

2003

- Reply to occasional survey data processing requests.
- Do descriptive analysis with SAS.
- Format summary reports in Word.

Statistician (internship)

Summer 2002

Centre for International Studies and Cooperation, Quebec City

- Continue the sampling application programming with Stata.
- Do correspondence analysis with SPSS and Stata.
- Develop commands for Stata to get the factor scores of row items and to add supplementary variables (non-contributing) in a correspondence analysis.
- Structure and analyze survey data from Chad.

SAS Programmer

Summer 2001

Ministère des Transports, Quebec City

- Empirically choose an estimator for annual average daily traffic (AADT).
- Design, with SAS, a document model presenting hourly average volumes, monthly distribution and rush hour list, with this data as graphics, for any traffic section.
- Examine error types produced by vehicle classification algorithms, through SAS simulation.
- Validate the data of the 1999 On road survey (more than 150 variables to validate).
- Do a principal component analysis of this data with SAS.
- Do an in depth study of the SAS macros.

ACHIEVEMENTS

by Parent and Childset Accessible Syntax Tree Language

2008–2016

Create a programming language that eases self-modifying code and program an interpreter in C for it. To see the documentation on the Internet: <http://www.pcosmos.ca/pcastl/>

3D Face Screensaver

2004–2012

Program in C and in C++ a screensaver with OpenGL. To download or to see the screen captures: <http://www.pcosmos.ca/opengl/?lang=en>