Jonathan Gaudreau
6010 Decelles Avenue, #14, Montréal. H3S2E2.
514-316-9581
jgaudreauGIS@gmail.com

Highlights

- Alma Mater scholarship in GIS
- ESRI Canada scholarship
- R, QGIS, GDAL, ArcGIS, MapInfo
- Python, Java and C languages
- Advanced statistics
- Experience with programming and calibration of spatially-explicit models
- Computational modelling
- Big Data management with Hadoop
- Bilingual
- Excellent document writing skills

EDUCATION

Université de Montréal, Montréal
M.Sc. Geography **2013-2015**
Modelling the changes in the spatial distribution of black-backed woodpecker in the Boreal Forest of Quebec in relation to Climate Change: an Agent-Based approach

Université de Montréal, Montréal
B.A. Eastern Asian Studies and Geography **2009-2012**

WORK

Private consultant – GIS Professionnal **Dec 2015 - Present**
- Providing help in geographical information science

Dromadaire Géo-Innovations Inc. – Software programmer (Python) **March 2015 - Present**
- Design and implementation of a software for automated download, calibration and classification of satellite images.
- Automated identification of river ice on Landsat-8 and MODIS images

Navut.com – Consultant in GIS **July 2nd – October 31st 2015**
- Automation of census data allocation to city neighborhoods
- Spatialization of non-spatial databases
- Development of data formatter and importer using GeoJSON format
- Development of MongoDb queries for spatial queries

Université de Montréal – Teaching Assistant **Winter and Fall semesters 2014**
GEO3015 – GIS3: Projects
GEO6341 – Complex systems study
GEO3532 – Modelling
GEO2512 – Geographical Information Systems (GIS) **Winter 2013 semester**

Université de Montréal – Teaching Assistant
GEO3442 : Southeast Asia
GEO2112 : External Geodynamics

DISTINCTIONS/GRANTS

- 2015 – ESRI Canada scholarship for University of Montreal – 1500$
- 2015 – Alma Mater excellency grant for studies in GIScience – Geography Department, Université de Montréal – 500$
- 2012 – Charles Le Blanc excellency grant for studies in geography of Asia– Center for Eastern Asian Studies (CETASE) – 500$

SKILLS

- Computer programming languages known :
    - C, Java, Python, Javascript
- Statistics softwares :
    - R, MS Excel and SPSS
- Geomatics :
    - ESRI ArcGIS, QGIS, GDAL, MapInfo and SIGIS
- Database management in MongoDB and Access
- Complex systems modelling
    - NetLogo and Agent Analyst

PAPERS – WITH REVIEWING COMMITTEE

- **Gaudreau, J.**, L. Perez, P. Drapeau (2014). BorealFireSim: A GIS-based Cellular Automata Model for Wildfires for the Boreal Forest of Quebec in a Climate Change paradigm. Ecological Complexity. Accepted for publication on March 2016. http://www.sciencedirect.com/science/article/pii/S1574954115002022
- **Gaudreau, J.**, L. Perez, P. Legendre., (2014). Identification des variables expliquant la distribution spatiale d'oiseaux de la forêt boréale. CyberGÉO. Published. https://cybergeo.revues.org/26969

COMMUNICATIONS

- Gaudreau, J., (2014). BorealFireSim: Modèle dynamique de feux appliqué à la forêt boréale du Québec, une approche par automate cellulaire. September 30th. Guest lecturer
- Gaudreau, J., L. Perez., (2014). Understanding the factors determining the spatial distribution of boreal birds in Quebec: a multivariate approach. CAG annual meeting, St.-Catharines, ON, Canada. May 26th-May 30th.
- Gaudreau, J., L. Perez., (2014). Modélisation de la distribution d'espèces de la forêt boréale en lien aux changements climatiques. Colloque annuel des étudiants et étudiantes en Sciences de l'Environnement de l'UQÀM, Montréal, QC, Canada. May 2nd.
- Gaudreau, J., (2014). La modélisation multi-agent comme outil de préservation de la biodiversité aviaire boréale dans le contexte des changements climatiques. April 2nd. Guest lecturer
- Gaudreau, J., L. Perez., (2013). Modeling Bird Migration Shifting in the Province of Quebec due to Climate Change: An Agent-based Approach. Colloque annuel du CSBQ, Montréal, QC, Canada. December 12th-13th.