# Darrell Aucoin

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## Objective

To further develop my machine learning knowledge, devise new machine learning models and implement them.

## **Executive Summary**

- Prospective Data Scientist with Masters Degree in Applied Computing and Bachelor degree in Statistics and Computational Math with experience in R, Python, SQL, Apache Spark, and C++
- Knowledge of a wide variety of statistical models learned though B. Math in Statistics and Computational Math
- Demonstrated leadership and management skills as President of Statistics Club for 2 years
- Passion for communicating ideas and concepts via presentations/tutorials for the UW Statistics Club as well as national conferences

#### **Data Science Skills**

**Modelling:** Studied various statistical models through Bachelor of Math in Statistics.

**Data Wrangling:** Cleaned data related to projects using SQL, Spark, R and Python.

**Communication:** Made various presentations to classes, clubs, and conferences.

**Visualization:** Taken a statistics course on Data Visualization.

Programming: Experience data analytics programming languages: R, Python, Matlab, and Apache Spark.

Data Data Wrangling Modellind **Technology Communication** 

**Data Science Radar** 

Visualization Programming

**Technology:** Built a small Hadoop cluster using single board computers.

#### Relevant Work Experience

Machine Learning Researcher, Interdata Laboratories, Montreal, QC.

May 2017-Aug 2018

- Research, train, deploy Machine Learning models to help automatically prepare data
- Designed and Implimented a segmentation machine learning model that breaks a string into it's components
- Created models on anomaly detection for text columnar data, working with noisy data, and classifying whole columns of data

**Software Adviser**, Statistical Consulting Centre, University of Waterloo, Waterloo, ON.

Provided software advice on R, SQL, and SPSS for graduate students

#### Education

## Master of Science in Applied Computing, Data Science Concentration

Fall 2016-2018

 University of Toronto, Toronto, Ontario.
 Relevant Courses: Topics in ML: Interference & Generative Models, Algorithms for Genome Sequence Analysis, Probabilistic Learning and Reasoning, Fundamentals of Statistical Genetics

#### Bachelor of Mathematics with Major in Statistics and Computational Math with CS Minor

2015

2015

• University of Waterloo, Waterloo, Ontario.

Relevant Courses: Inference for Big Data, Classification (Machine Learning), Data Visualisation, Function Estimation, Data Types (Python), Object-Orientated Programming (C++), Databases (SQL), Spatial Data Analysis, Longitudinal Data Analysis, Computational Linear Algebra

#### Research Experience

**Undergraduate Research Assistant**, Shoja'eddin Chenouri: University of Waterloo.

May-Aug 2015

Worked with Apache Spark on various data projects

**Undergraduate Research Assistant**, Shoja'eddin Chenouri: University of Waterloo.

May-Aug 2014

Investigated and wrote supplementary material on various Big Data Tools

Projects and Extracurricular Activities	
<ul> <li>Missing Data Imputation Using Gaussian Mixtures: Investigated MCMC gaussian mixture models for imputation.</li> <li>CSC 2541: Differentiable Inference and Generative Models Project</li> </ul>	or data 2016
Review of Genotype Imputation Algorithms: Compared various genotype imputation algorithms.  • CSC 2417H: Algorithms for Genome Sequence Analysis Project	2016
Statistics Club President, University of Waterloo  ■ Lead a team in providing various statistics related educational and social activities for fellow stud	014-15 lents.
Executive Evaluation Committee Member, MathSoc, University of Waterloo  ■ Evaluated MathSoc executives and provided constructive criticisms and recommendations	ll 2015
<ul> <li>Small Hadoop Cluster: Created a small Hadoop cluster using single board computers. Marked by the Math Endowment Fund (MEF).</li> <li>Determine Influence in Social Media: Ranked Twitter users using machine learning algorithms</li> <li>Stat 441: Classification Project</li> </ul>	y 2015 2014
Honours and Awards	
NSERC Undergraduate Student Research Award: Natural Sciences and Engineering Research Council of Canada  • Received 2 awards for work underneath a supervisor at University of Waterloo (see Research Experience)	2015
<ul> <li>Winston and Diana Cherry Award in Statistics: University of Waterloo.</li> <li>For highest mark of 98 in a statistics course (Computational Inference)</li> </ul>	2013
<ul> <li>Jason Lang Scholarship: Student Aid Alberta.</li> <li>For outstanding academic achievements in undergraduate studies</li> </ul>	2012
Dean's List: University of Alberta.	2012
Honourable Mention: MCM: The Mathematical Contest in Modelling.  Academic Conferences	2012
<ul> <li>PyCon Canada: Toronto, Canada</li> <li>Python conference on various topics: new features for python, neural networks, etc</li> </ul>	2016
Big Data Phenotyping: Opportunities, Analytic Challenges, and Solutions: Toronto, Canada  ● Conference on various issues related to big data and health research	2016
<ul> <li>SORA/TABA Annual Workshop 2016 and DLSPH Biostatistics Research Day: University of Toronto.</li> <li>Workshop on causal inference in observational studies</li> </ul>	2016
<ul> <li>Undergraduate Research Opportunities Conference (UROC 2015): University of Waterloo.</li> <li>Performed analytics on protein data as part of a 3-person team</li> </ul>	2015
<ul> <li>Canadian Undergraduate Mathematics Conference (CUMC 2015): University of Alberta.</li> <li>Presented a talk on MapReduce and the basics of distributed computing</li> </ul>	2015
Canadian Undergraduate Mathematics Conference (CUMC 2014): University of Carlton.  Presentations	2014
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CUMC 2015: MapReduce and the basics of distributed computing.  Canadian Undergraduate Mathematics Conference, University of Alberta.	2015
<b>Big Data Concepts &amp; Tools</b> : MapReduce, the basics of distributed computing and some big data tools. Statistics Club, University of Waterloo.	2015
Intro to Hadoop: MapReduce and basic overview of commands for Hadoop. Statistics Club, University of Waterloo.	2015