# Uyen Hoang

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## SUMMARY

A result-oriented data scientist with hands-on experience in building statistical models to address business problems via regression, segmentation, design of experiments and other forms of multivariate analysis. Major strengths include attention to detail, excellent problem solving skills, the capacity to work as a team player, and effective communication skills.

## PROFESSIONAL EXPERIENCE

- **MEC** **Toronto, ON**
  *Freelance Data Scientist* *Sept 2017 – Oct 2017*
  - Built customer lifestyle segmentation models for scalable, customer-centric marketing solutions at Mountain Equipment Co-op
  - Conducted literature review on cluster analysis for asymmetric binary variables
  - Developed a R framework to automatically produce descriptive statistics for each cluster and carry out a pairwise comparison task on profiling questions
  - Applied a raking technique to rebalance a survey sample to improve its representation
- **Vox Pop Labs** **Toronto, ON**
  *Data Scientist* *Jul 2014 – Jul 2017*
  - Developed and implemented the individual ranking and clustering algorithms for the Toronto Star Sentimeter application, which attracted fifty thousand users in two weeks
  - Assisted in the development of internal tools that reduced the running time of the data analyses in half
  - Worked with political scientists to analyze Vote Compass survey data and provide insights into public opinion on a variety of key issues. Compiled reports that were covered weekly by national public broadcasting partners during election campaigns
  - Modified a crowdsourcing algorithm to improve an innovative method of predicting vote intention at the electoral level
  - Created a hybrid model for weighting non-representative samples to reduce the variability of sample estimators
- **BEworks** **Toronto, ON**
  *Independent Statistical Consultant* *Dec 2013 – Feb 2014*
  - Carried out a power analysis to calculate the ideal sample size required to detect a given effect size in a large scale randomized control experiment to test interactive voice recording intervention and optimize client solutions
  - Identified trends and patterns in the data, and made them relevant to key decision makers within a company
  - Used an interactive visualization to quickly draw attention to the salient findings
- **University of Toronto** **Toronto, ON**
  *Research Assistant* *May 2010 – Nov 2013*
  - Provided statistical advice, helped to compile data files, and successfully completed the analyses for the academic project: "Applying Behavioral Science to Interactive Voice Recording Messages to Reduce Delinquency" at the Rotman School of Management
  - Performed graphical computation in R, coauthored the research paper "Vector Exponential Models and Second Order Inference", and the paper "A tutorial on tangent exponential models"

## EDUCATION

*Master of Science in Statistics. University of Toronto. Toronto, ON* 2010 – 2011
*Bachelor of Science (Honours) in Statistics. University of Toronto. Toronto, ON* 2006 – 2010

## TECHNICAL SKILLS

**Statistics:** Data mining techniques (clustering methods, factor analysis, decision tree, neural networks, etc.), data analysis using regression and multilevel/hierarchial models, non-parametric methods, survey sampling methods
**Statistical software:** Proficient in R; some experience with SAS, Matlab
**Programming languages:** SQL, Python, and shell script
**Computing platform:** Unix, Linux
**Additional software:** LaTeX, Excel