

# FAIZAN KHALID MOHSIN

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## EDUCATION

### University of Toronto

Expected Graduation: Jun 2019

Master of Science in Biostatistics, Dalla Lana School of Public Health

### University of Toronto

Degree awarded: June 2016

Honors Bachelor of Science: GPA of 3.83 in the last two years

Specialization in Statistics & Specialization in Mathematics and its Applications (Statistics/Probability)

## SELECT WORK EXPERIENCE

### Cube Statistica, Business and Statistical Consulting

June 2016 - present

*Founder/CEO*

- Completed over 20 business and statistical consulting projects.
- Performing business consulting for companies by identifying key actions and opportunities and developing solutions and strategies for increasing growth and sales.

### Advantage International Group

March 2018 – present

*Market Development Analyst*

- Performing predictive modeling and machine learning algorithms to analyze market data.
- Automated the data analysis process, reducing delivery time of each dataset from a day to 20 minutes.
- Performing text mining and sentiment analysis on verbatim data from follow-up phone call interviews.

### Statistical Consulting

Feb 2018 – present

*Lead Statistician*

- Performing survival analysis on ICES data, with over 51,000 patients.
- Modeled cancer incidences of Ontarians over the age of 66 years, using Cox proportional-hazards model with time-dependent covariates.

## RESEARCH EXPERIENCE

### Statistical Research in Cancer Reported Outcomes

June 2016 – Feb 2017

*Lead Statistical Researcher, WE-Can program, ELLICSR, Toronto General Hospital*

- Compared self-reported patient fitness outcomes to actual fitness measures, to assess if patient reported improvements were reflected in improvements in the actual fitness measures.
- Conducted sensitivity to change analysis on the outcomes using R to identify the most responsive ones to reduce the burden of measurement on patients.

### Statistical Research in Missing Data, University of Toronto,

March 2016 – May 2016

*Lead Researcher*

- Compared the performance of different missing data methods by simulating data as well as different types of missingness and using Mixed Effects Models to fit the data in R.
- Found that under certain conditions, Complete Case Analysis performs as well as Multiple Imputation.

### Statistical Research in Cancer Patients Study, University of Toronto,

Sept 2015 – March 2016

*Lead Researcher, Joint Collaborative project with the Statistics and Kinesiology Department of U of T*

- Analyzed the effects of the Wellspring Cancer-Exercise Program on cancer fatigue to improve the quality of life of over 200 cancer patients who participated in the program.
- Developed methodologies for data analysis, and assessed the impact and feasibility of the program.
- Used visualization techniques and summarized the results of Mixed Effects Models, GEE and missing data methods in R, for the final report and the hour long final presentation to the collaborator.

- Statistical Research in Environmental Data**, University of Toronto Sept 2014 – May 2015  
*Lead Researcher, Joint Collaborative research project with the Statistics and Ecology Department of U of T*
- Population Modeling: Researching Lake Trout and Walleye population growth curves (length-at-age data) by using a recently developed Biphasic Growth Model and performing linear and non-linear Regression in R.
  - Developed methods for predicting the age of maturity of fish populations using the Biphasic Growth Model for the goal of sustainable fishing of lake trout and walleye populations.

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### AWARDS & HONOURS

- Best Undergraduate Research Presentation Award**, May 2016  
Annual Statistical Society of Canada Student Conference, “Comparing different missing data methods”
- University College Special In-Course Scholarship**, University of Toronto April 2014  
Received for high academic performance for the 2013-2014 academic year
- Scholarship**, Marsan College, Montreal, QC  
Program: Adobe Photoshop & Photography Jan – Feb 2007  
Won first prize in a photography contest on the theme of *Nature & the City*

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### FORECASTING COMPETITIONS

- Team Leader, Won the Case Study in Data Analysis Competition** May 2016  
Statistical Society of Canada Annual Conference, “*What Predicts Sustainability of Canadian Charities?*”
- Used Machine Learning Methods for feature selection and classification to predict if charities succeeded or went bankrupt using the tax return data, provided by the CRA, of all over 23,000 Canadian charities.
  - Used an innovative clustering method to group the successful charities into different segmentations.
  - As team leader presented our research to over 20 people as well as 4 judges at the conference.
- Team Member**, Case Study in Data Analysis Competition May 2016  
Statistical Society of Canada Annual Conference, “*Can Google Flu Trends Predict the Frequency and Results of Tests for Influenza and Other Respiratory Illnesses?*”
- A seasonal ARIMA model with Google Flu Trends was used to model and predict time series trends.
  - We were able to predict flu peaks 2 weeks in advance using our model.

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### PRESENTATIONS & INDUSTRY WORKSHOPS

- Industrial Problem Solving Workshop (IPSW)**, 15 – 19 Aug 2016  
The Fields Institute for Research in Mathematical Sciences, Toronto, ON  
Selected to participate at the IPSW where graduate students solve complex problems arising from industry
- Participant of PIMS Graduate Mathematical Modeling in Industry Workshop**, 7 – 14 Aug 2016  
University of British Columbia, Vancouver, BC  
One of few undergraduate students to be chosen to participate at the PIMS GMMI Workshop, where graduate students work on real problems faced by Industry
- Annual Statistical Society of Canada Student Conference** 28 May 2016  
Brock University, St. Catherine, ON  
Faizan Khalid Mohsin, Jasmine Nguyen, Hongyang Hu, Nathan Taback, “Comparing performance of different Imputation Methods”

## LEADERSHIP EXPERIENCE

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**Member of the Sciences Curriculum Committee** (Elected Position) Sept 2015 – May 2016

Faculty of Arts & Science, University of Toronto

- Reviewed and recommended proposals for over 10 new undergraduate courses and 2 new programs as well as existing ones.
- Monitored the content, quality, and requirements of the science programs and individual courses offered by the Sciences Faculties.

**Vice President**, Statistical Sciences Association of Students (formerly UT-Stats Club) 2013 – 2014

Department of Statistical Sciences, University of Toronto

- Head of all internal affairs of the club such as finance, public relations and club events.
- Wrote the new constitution of the club, and planned and approved the annual budget.
- Organized several successful events such as the Statistical Programming Competition, SAS and R crash courses, Graduate School Information Session, and the Annual End of Year Gala.

**Friends of Literacy and Mass Education (FLAME)** Karachi, Pakistan

*Assistant Accountant and Secretary of the CEO* June – Aug 2012

- FLAME is an NGO that establishes small schools in impoverished areas of Karachi and provides basic healthcare to students, with over 60% enrollment of girls.
- Assisted in maintaining the accounts and bonus sheets of the 160 teachers for internal records.
- Wrote quarterly reports of the 140 FLAME schools to record progress and obtain further donations.

## ADDITIONAL SKILLS

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Computer: R, SAS, Python, SPSS, Tableau, SimplyAnalytics, Minitab and Photoshop

Languages: Fluent in English, French and Urdu