

SKILLS

- Proficient in R, Excel, and OpenSolver
- Experience with Python, C, C++, and SAS
- Strength in cluster analysis, simulation design, and outlier detection/imputation
- Capability in problem formulation and needs identification
- Project experience with multiple linear regression, functional data analysis, ELO model implementation, clustering and routing analysis, and Monte Carlo simulations
- Professional experience with large scale event organization

EDUCATION

MASTER OF SCIENCE: STATISTICS

- Started MSc Statistics at SFU in Fall 2018
- Supervised by Dr. Tim Swartz
- Graduate NSERC scholarship recipient

BACHELOR OF SCIENCE: OPERATIONS

RESEARCH

- Undergraduate Degree in Operations Research with Distinction, SFU Faculty of Science, 2013-2018
- GPA: 3.96/4.33, NSERC Undergraduate Researcher
- Recipient of the Academic Excellence Scholarship and the Department of Mathematics Award

PROJECT EXPERIENCE

THE KINGS OF FOUL TROUBLE

Building an improved set of guidelines for Foul Trouble in the NBA

Spring 2018

- Worked with the Sacramento Kings in a private data competition
- Designed and implemented a simulation-based survival analysis in R to understand minutes of playtime expected for each player given foul number
- Helped develop an R Shiny applet to facilitate ease of use for non-technical members of Sacramento staff
- Created the report of our findings and submitted to the Sacramento Kings, eventually announced as the winners for our topic and invited to CASSIS Conference to present

THE WALKING SCHOOL BUS ROUTING PROBLEM

Designing an algorithmic solution to walking to school

Spring 2018

- Built a simulation model in R for cluster first, route second approach in organizing walking groups of children to school
- Interfaced with Google Maps API and Canadian Census data to generate accurate and realistic simulated data, including conversion and use of JSON data
- Ran simulation in R and compared with a known solver to a similar Vehicle Routing Problem
- Invited to Undergraduate Student Research Competition in Halifax in which we subsequently won the National Award from the Canadian Operational Research Society

MOJIO DATA SCIENCE COMPETITION

Evaluating and describing driver performance of 300+ drivers

Spring 2016

- Worked with a team to explore possible ways of explaining and comparing driver behaviour
- Cleaned and formatted over 2 million observations
- Programmed an ELO model in R to compare driver performance on a per trip basis
- Presented the project to Professors and contest stakeholders, ultimately winning the competition

WORK EXPERIENCE

SURVEY

METHODOLOGIST

Statistics Canada
May 2017 – Aug 2017

- Designed programs in SAS to help automate the selection of outlier detection and imputation methods on a survey by survey basis
- Presented findings to client division and management for the National Travel Survey
- Built a simulation program to explore the impact of multimodal data on two specific methods of outlier detection
- Completed informative reports to guide further research and decision making

ENTERPRISE

INTELLIGENCE INTERN

Vancity
May 2016 – Sept 2016

- Completed text analysis of free form loan application fields using the textmineR package in R, resulting in new insights into loaning within Vancity
- Organized and facilitated the inaugural Vancity Data Conference while also hosting the Panel as moderator and running the entire day as MC
- Revised understanding of Triple Bottom Line Assets by consolidating data from across Vancity and presenting findings to risk managers

COMMUNITY INVOLVEMENT

VANSASH ORGANIZER

Simon Fraser University
April 2018 – Present

- Facilitated the second annual Vancouver Sports Analytics Symposium and Hackathon
- Connected industry experts to academics in a professional, competitive setting
- Contacted and coordinated local companies in providing workshop and judging opportunities
- Enrolled one of the largest groups of students in a sports-based hackathon in Canada

ADDITIONAL EXPERIENCE

LEAD MATH TUTOR

Ski & Company Tutoring,
Private Tutoring
Feb 2014 – August 2018

- Increased school success by creating and implementing lesson plans, including engaging mathematical activities and games for students ages 7 to 19
- Ensured positive and professional tutoring experiences by demonstrating new and creative approaches to tutoring through feedback and research
- Discussed mathematical concepts with coworkers, offering all forms of assistance to help team members teach mathematics more effectively
- Reviewed students' daily and provides monthly overviews, allowing for specific feedback and individual curriculums for each student

MORE ABOUT ME

- Unabashed lover of math and videogames
- Focused saver and investor since age 9
- Runner, indoor rock climber, soccer and ball hockey player
- Seasoned camper and hiker, with a preference for Golden Ears and Alice Lake



A frequent bus commuter, local area network (LAN) gamer, and snow lover