Martin Stelmach

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🖥 https://stelmacm.github.io/

I am a responsible, dependable and focused individual with strong interpersonal and team building skills, willing to work hard and learn quickly. I am an energetic, hardworking and creative problem solver who enjoys working in a fast pace environment.

Education

Academic Qualifications

○ **Honours Bachelor of Science - Mathematics & Statistics; Minor in Economics**   **Hamilton, ON, Canada**
McMaster University,   *2015–2019*

○ **Masters in Science; School of Computational Sciences & Engineering**   **Hamilton, ON, Canada**
McMaster University,   *2019–2021*

Notable Projects

○ **Masters Project:** *'Spatial epidemiology of human transmission of Whitenose disease in bats'*

Created a spatial epidemiological model that links human transmission to the spread of a fungal disease that affects bats all over North America using Bayesian methods. Simulated spatial spread and used visualization techniques to demonstrate accuracy of model. Project is in the process of being published.

○ **Data Visualization Project** *'Modelling the Life Cycle of the Spruce Budworm'*

Created visualization to describe describe development of larvae growth over time using animation techniques. Demonstrated understanding and ability to communicate the model by visualizing development curves of the model. Simulated Spruce Budworm development by location and compared results using a user-friendly interactive plot.

○ **NBA Statistical Prediction Model:** *'Predicting NBA contracts based on advanced analytics'*

Created basketball models to accurately anticipate value of players to a given roster using machine learning methods. Implemented prediction methods to quantify attributes regarding a player to a dollar amount in an open market given salary cap restrictions.

○ **Fourth Year Project:** *'Epidemiological model of Ebola in core vs periphery nations'*

Created a deterministic SIR model to explore the effects of Ebola in different nations. Model report included stochasticity, R_0 value, seeding process, and stress testing the model under various circumstances.

○ **Third Year Project:** *'Mortality improvement prediction model'*

Organized data from various data sources and API's to create an actuarial model to calculate mortality improvement predictions for different demographics.

Technical and Personal Skills

○ **Programming Languages:** Proficient in: R, ARCGIS, C++, Python, SQL, Excel.

○ **Industry Software Skills:** All MS Office products, LaTeX, RStudio Shiny, Tableau, API's.

○ **Skills and Techniques:** Strong knowledge of important algorithms, Machine learning techniques and Statistics. Familiarity with data structures, workflow management and data visualization techniques.

○ **General Business Skills:** Great presentation skills, works well in a team, excellent interpersonal skills

○ **Other:** Fluent in English, Polish and French

Previous Employment

Researcher **Oakville, ON, CA**
Science for Everyone *September 2021–Current*

- Investigate and summarize advanced topics and communicate them in an effective and understanding way
- Teach individuals important terms in statistics, machine learning, AI and epidemiology to educate the public about science literacy
- Worked with different team members in different departments to complete tasks effectively and on time

Teaching Assistant **Hamilton, ON, CA**
McMaster University *September 2019–May 2021*

- Created and revised lesson plans and material to optimize student learning experience
- Communicated lessons in person and over Zoom to classes of ranging between 20 people to 500 people, of various age groups, using multiple instructional approaches to ensure optimal comprehension from the student on a given topic
- Responsible for invigilated tests and final exam as well as answered questions regarding the examination material
- Responsible for acting as liaison between students and principle instructor

Data Analyst/Strategy Coach **Hamilton, ON, CA**
McMaster Athletic Department; Basketball Team *September 2017–April 2019*

- Measured and calculated various individual and team statistics to create metrics of success
- Organized and visualized the data for easier comprehension
- Created strategies based of statistical evidence of success against opponents to create data driven approaches to winning games
- Responsible for coaching individuals and used interpersonal skills to create bonds with players to communicate effective strategy better

Private Tutoring **Remote**
Private *September 2017–Current*

- Created custom lesson plans to target and enhance areas that lacked understanding using several teaching methods.
- Remained attentive and catered to students as necessary; usually students went from C to A grade.

Volunteering and Extra Curricular

Scrutineer **Oakville, ON, CA**
Elections Canada *September 2021–September 2021*

- Responsible for supervising electoral staff counting votes and ensure task was completed without errors
- Communicated to organizers results of given electoral polling station
- Optimized voter turn out by using communication skills to contact and encourage potential voters to exercise their right to vote

Science Society Representative **Hamilton, ON, CA**
McMaster University *September 2017–May 2018*

- Year long commitment to represent the faculty of science in ensuring incoming students transitioned properly to their respective programs
- Mentor younger students on academic standards and responsibilities and guide them through their academic journey

President of the Actuarial Society **Hamilton, ON, CA**
McMaster University *September 2017–May 2017*

- Recruiting, interviewing and hiring new team members.
- Managing the club finances and purchasing resources for students
- Managing relationships with companies and visitors of the club
- Creating and managing resources for student study material for actuarial exams

Achievements and Awards

- McMaster Student Union Teaching Assistant of the Year finalist

- School of Graduate Studies Scholarship - $6000

- McMaster Research Scholarship - $6000