

Sam Amin

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Profile

My goal is to learn how to assess and minimize environmental problems produced by businesses and households without sacrificing productivity, efficiency, or profitability. I am passionate about learning how to use leading edge technical tools for analysis. Environmental sustainability is an important factor for many industries to consider and I want to be part of the emerging environmentally conscience world.

Education

University of Toronto

September 2014 - April 2018

Honours B.Sc., Physics & Environmental Science Specialist

- Earned Graduation with Distinction for having an exceptional GPA
- Relevant Courses: Climate Change Impact Assessment, Climatology, Environmental Chemistry, Groundwater, Contaminant Hydrogeology, Environmental Law, Policy, and Ethics, GIS

Research

Research Assistant

May 2018

University of Toronto, Scarborough

- Analyze temperature and air mass data using R and MS excel pivot tables to assist in identifying emerging trends on climate conditions
- Prepare and present concise reports on historical climate data on a biweekly basis to provide a summary of weekly findings of Canadian climate conditions
- Utilize Climate Change Impact Assessment framework to find correlation between Urban Heat Island Effect and Sheridan Air Masses occurrence using data from stations across Ontario:
 - Define problem
 - Identified exposure unit, study area, time frame, and main goal of research
 - Select method
 - Determined various forecast scenario should be used to better understand uncertainties to reach decisions that are robust under a wide range of possible futures or alternative futures
 - Plotted path temperature baseline to allow easy trend analysis
 - Created a statistical relationship
 - Test method/sensitivity
 - Examined feasibility of historical record according to the goal of the research
 - Gathered and complied data from various databases; 60-year record of spatial synoptic classification (SSC), minimum, maximum and mean temperatures in Ontario
 - Adjusted for discrepancies in data
 - Next steps: select scenarios, assess biophysical impacts, assess socio-economic impacts, assess autonomous adjustments, evaluate adaptation strategies

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Skills

- Working knowledge in Power BI, GIS, Python, and LaTeX
- Proficient in Microsoft Office Applications – word, excel, powerpoint and outlook

Experiences

Administrative and Teaching Assistant

February 2013 - Present

Kumon Math & Reading Centre

- Improve student's understanding of key skills and concepts in Mathematics and Reading through explanations and instructions
- Provide feedback to students to improve problem solving technique and efficiency, and advise parents and instructors which learning materials can advance student knowledge based on student's performance
- Accurately record grades and comments on CMS standard to maintain an updated profile on each student in one location for easy access

Barista

February 2017 - July 2017

Starbucks Coffee Company

- Hand crafted a wide array of beverages in a fast paced environment while fostering relationships with customers to help result in high quality service
- Achieved company's sales goals by appropriately suggesting products to customers based on knowledge of their personal preference to enhance the customer experience

Project Experiences

Fluid Dynamics & Contaminant Hydrogeology

- Analyzed scientific issue related to describing the dynamics of sand movement due to their great affect on the environment around them such as wide spreading of pollution, desert sand storms, and increased contaminant transport causing fertile land becoming infertile
- Reviewed science based documents on the effectiveness of the remediation methods of TCP-contaminated water to better understand best practices of resource remediation
- Evaluated the design and conclusions of literature, identified problems and suggested solutions

Physics Lab: E/M mass to charge ratio

- Accurately recorded observed data, analyzed results, and drew conclusions
- Analyzed quantitative data gathered and prepared a report highlighting significant trends using python and LaTeX
- Reflected on findings to see what could be improved

Climate Change Impact Assessment: Projections and confidence of frost days in spring

- Cleaned noisy data using pivot tables and VLOOKUP
- Transformed raw data into actionable insights by modeling possible future outcomes
- Utilized climate change impact assessment framework to analyze environmental issues
- Worked smarter, not harder to convert data into visually impactful dashboards in MS excel and power BI resulting in insightful reports that was meaningful and actionable

Climate Change Impact Assessment: Debate Topic: With the current rate of increasing greenhouse gas emissions, it will be impossible to meet the 2°C target set by COP21 (Conference of Parties)

- Set objectives and deadlines for the group to efficiently complete tasks before deadlines
- Communicated ideas and difficult concepts effectively to group mates and during presentation
- Defended research findings during research conference style presentation