

# Aymen Rumi

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## Objective & Summary

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Computer Science and Mathematics graduate from McGill University looking for employment or research opportunity to help apply my knowledge/skillset to real world problems and advance my career.

## Education

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**McGill University**, Faculty of Computer Science **Montreal, Canada** | 2015-2020  
*Bachelor of Science: Major - Computer Science, Minor – Mathematics*

**Westview High School** **San Diego, California, United States** | 2011-2015  
*High School Diploma, Award: President's Education Award –Academic Excellence*

## Employment History

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**CAE Inc. – Software Engineering Internship** **Montreal, Canada** | Summer 2018, May-August  
4-month Internship: Was given the task of implementing Software Automated Testing using 3<sup>rd</sup> party applications i.e. Ranorex, & later helped incorporate same testing features to CAE's Simfinity framework by adding Self Click functionality using C++ & C#

**Private Tutor – Macroeconomics CEGEP Tutor** **Montreal, Canada** | January-June, 2020  
Helped student master Macroeconomics concepts by provided self-made notes additional to coursework, mostly tying rigorous theory to explainable real-world economic events. Proof-read course assignments & take-home final. Student received an A

## Highlighted Projects- *please visit Portfolio for more*

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### Personal Portfolio Website

Programmed a static website from scratch using HTML, CSS, JavaScript. Used as a portfolio, & personal sharing platform. I share my social media, written articles, projects, programs, data science reports, programmed REST APIs & much more.

### Morris Water Maze Task

Using Python on Jupyter Notebook, I replicated results from a computational neuroscience academic paper studying neural mechanisms of spatial learning and memory. I simulated a rat's spatial navigation system and memory-based coordinate system via actor-critic network using temporal difference learning; a model-free reinforcement learning method.

### House Prices: Advanced Regression Techniques

Data science project; Data cleaning (imputations for missing values), data visualization, data preprocessing done using R. Prediction model (multiple linear regression, random forest regressor, & deep neural network) training & hyperparameter-tuning done using Python (Scikit-Learn, TensorFlow). Model performances were compared using k-fold cross validation.

## Relevant Skill & Coursework

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### Skills

#### Programming

Proficient: Python, R, MATLAB, Java, C++, C, SQL, Linux Commands | Familiar With: HTML, CSS, JavaScript, C#

Libraries/Tools: Scikit-Learn, Keras, TensorFlow, Flask, Git, Docker, LaTeX, RMarkdown

Languages: English, French, Bengali

### Relevant Courses

Computer Science: Algorithms & Data Structures, Software Design, Operating Systems, Database Systems, Artificial Intelligence, Computational Biology Methods, Robotics & Intelligent Systems, Applied Machine Learning, Brain-Inspired Artificial Intelligence

Math/Statistics: Probability, Statistics, Ordinary Differential Equations, Stochastic Processes, Numerical Computing, Statistical Computing, Honors Regression and Analysis of Variance, Time Series Analysis

Others: Microeconomics, Macroeconomics, Introduction to Psychology

## Legal Status

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Dual Citizen (United States/Canada)

## **Leadership & Extracurricular**

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### **Bangladeshi Student Association - Co-President (2019-18) & Representative (2018-17)**

**McGill University | 2017-2019**

Led a student organization to promote Bangladeshi Culture at McGill University. Managed all members of executive team, was in charge of appointing roles; handling coordination of events, fundraisers, and collaborations with other South Asian organizations; facilitated a means for open, social, and cultural network among student body.

### **Intramural Basketball – Team Captain (Fall 2019)**

**McGill University | 2018-2020**

Played 4 seasons (semesters) of Intramural Basketball at McGill University. Helped contribute to team championship in Winter 2019 & had the role of Team Captain in Fall 2020. Learned to sacrifice and manage egos for greater good of a team as well understanding importance of defining team hierarchy & playing designated role within larger group context.