

# Samy Lahlou Kamal

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## Education

August 2022	<b>McGill University</b>	Montréal, Canada
– present	Bachelor of Science - Honours Mathematics & Minor Computer Science. GPA: 3.79/4.00	
September 2015	<b>Lycée Lyautey</b>	Casablanca, Morocco
– June 2022	French Baccalaureate with High Honors (Mention Très Bien). Specialities: Mathematics & Computer Science Options: Expert Mathematics & Music	

## Research Experience

May 2025	<b>Research Project on Special Values of L-functions</b>
– present	Supervisor: Professor Henri Darmon (McGill University) <ul style="list-style-type: none"><li>○ Currently working on the history of L-functions (reading the original books and papers), and their special values.</li><li>○ Presented my work in the USRA Number Theory seminar.</li><li>○ Started writing an expository paper on the detailed history of L-functions and the mathematicians that contributed to that subject (L. Euler, P.L. Dirichlet, B. Riemann, R. Dedekind, E. Hecke, ...): [pdf (unfinished)]</li><li>○ Funded by the NSERC (Natural Sciences and Engineering Research Council of Canada).</li></ul>
Summer 2024	<b>Research Project on the Ergodic Theorems</b>
	Supervisor: Professor Anush Tserunyan (McGill University) <ul style="list-style-type: none"><li>○ Studied Measured Group Theory with applications to the Ergodic Theorems.</li><li>○ Wrote an expository paper on the ergodic theorems with a focus on Pr. Tserunyan's new proof of the Birkhoff Ergodic Theorem: [pdf]</li><li>○ This project was part of the Honours Research Project class MATH 470.</li></ul>
January 2024	<b>Directed Reading Program on <math>p</math>-adic Numbers</b>
– April 2024	Supervisor: Doctoral student Hazem Hassan (McGill University) <ul style="list-style-type: none"><li>○ Studied <math>p</math>-adic numbers and <math>p</math>-adic Zeta-Functions by reading the book <i><math>p</math>-adic Numbers, <math>p</math>-adic Analysis, and Zeta-Functions</i> by Neal Koblitz.</li><li>○ Presented my learnings in front the other Directed Reading Program students.</li><li>○ Wrote a report presenting <math>p</math>-adic numbers, their construction and <math>p</math>-adic interpolation.</li></ul>

## Professional Experience

September 2025	<b>Teaching Assistant for the course History &amp; Philosophy of Mathematics</b>
– present	<i>McGill University, Montréal, QC</i> Instructor: Professor Henri Darmon, Course Code: MATH 338, 135 students <ul style="list-style-type: none"><li>○ Conducted tutorial sessions (three hours a week) and exam review sessions to go over the course content, additional content, and answer students' questions.</li><li>○ Wrote a suitable set of notes based on the students' questions to complete the resources available to the students.</li><li>○ Planned one-on-one meetings with students who wanted to.</li></ul>
January 2024	<b>Grader for the course Discrete Structures</b>
– April 2024	<i>McGill University, Montréal, QC</i> Instructor: Mr. Jeremy Macdonald, Course Code: MATH 240, 365 students <ul style="list-style-type: none"><li>○ Graded assignments (one every two weeks) for the course Discrete Structures.</li></ul>

- May 2023 – **Tutor in Mathematics**  
 September 2024 *McGill University, Montréal, QC*
  - Planning tutoring sessions (private or in group) for 1st year students in Mathematics.

June 2024 **Busboy**  
 – present *Cirque Eloize, Montréal, QC*
  - Supported bartenders during large events by restocking beverages, supplies, and cleaning.

May 2024 **Busboy**  
 – August 2024 *Pizzeria Moretti Griffintown, Montréal, QC*
  - Supported servers by cleaning tables, resetting place settings, refilling water and supplies, and maintaining clean dining environment.

## Projects

- January 2025 **Expository Paper on the Divergence of the Harmonic Series**
  - Wrote a self-contained paper presenting the importance of rigor in mathematics through the detailed study of the divergence of the Harmonic Series: [\[pdf\]](#)
- December 2024 **Published Historical Article on Fourier Analysis**
  - Researched on the origins and impacts of Fourier analysis on modern mathematics through the original works of the great mathematicians: J. Fourier, P.L. Dirichlet, B. Riemann, G. Cantor.
  - Co-authored (along with Nisrine Sqalli) a historical paper presenting our findings: [\[pdf\]](#)
  - Published a condensed version in the Delta Epsilon journal: [\[pdf\]](#)

December 2024 **Personal Website**

- present ○ Coded a personal website by learning and using HTML and CSS: [\[samylahlou.com\]](#)
- Post regularly my personal solutions to textbook exercises, articles that I write and reviews of textbooks and books related to mathematics.

## Awards

- Summer 2025 **NSERC Undergraduate Student Research Award – \$8950**

## Coding Skills

- | Programming Languages | Markup Languages                  |
|-----------------------|-----------------------------------|
| ○ Python              | ○ Assembly                        |
| ○ Java                | ○ SQL                             |
| ○ C                   | ○ MATLAB                          |
| ○ Bash                | ○ SageMath                        |
|                       | ○ L <sup>A</sup> T <sub>E</sub> X |
|                       | ○ HTML                            |
|                       | ○ CSS                             |

## Languages

- |                  |                 |                 |
|------------------|-----------------|-----------------|
| English (Fluent) | French (Native) | Arabic (Native) |
|------------------|-----------------|-----------------|