Samy Lahlou Kamal

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Education

August 2022 – present **McGill University - Faculty of Science** **Montréal, Canada**
Bachelor of Science - Honours, Mathematics & Minor Computer Science.
GPA: 3.79

September 2019 – June 2022 **Lycée Lyautey** **Casablanca, Morocco**
French Baccalaureate with High Honors (Mention Très Bien).
Specialities: Mathematics & Computer Science
Options: Expert Mathematics & Music

Research Experience

May 2025 – present **Research Project on Special Values of L-functions**
Supervisor: Professor Henri Darmon (McGill University)

- Currently working on the history of L-functions (reading the original books and papers), and their special values.
- Gave presentations in the USRA Number Theory seminar.
- 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)]
- Funded by the NSERC (Natural Sciences and Engineering Research Council of Canada).

Summer 2024 **Research Project on the Ergodic Theorems**
Supervisor: Professor Anush Tserunyan (McGill University)

- Studied Measured Group Theory with applications to the Ergodic Theorems.
- This project was part of the Honours Research Project class MATH 470.
- Wrote an expository paper on the ergodic theorems with a focus on the new supervisor's proof of the Birkhoff Ergodic Theorem: [pdf]

January 2024 – April 2024 **Directed Reading Program on p-adic Numbers**
Supervisor: Doctoral student Hazem Hassan (McGill University)

- Studied p-adic numbers and p-adic Zeta-Functions by reading the book *p-adic Numbers, p-adic Analysis, and Zeta-Functions* by Neal Koblitz.
- Presented my learnings in front the other DRP (Directed Reading Program) students.
- Wrote a report presenting p-adic numbers, their construction and p-adic interpolation.

Professional Experience

September 2025 – present **Teaching Assistant for the course History & Philosophy of Mathematics**
McGill University, Montréal, QC
Instructor: Professor Henri Darmon, Course Code: MATH 338

- Gave tutorial sessions (three hours a week) and exam review sessions to explain the course content, additional content, and answer students' questions.
- Wrote a suitable set of notes based on the students' questions to complete the ressources available to the students.
- Planned private meetings with students who wanted to.

January 2024 – April 2024 **Grader for the course Discrete Structures**
McGill University, Montréal, QC
Instructor: Jeremy Macdonald, Course Code: MATH 240

- Graded assignments (one assignment every two weeks) for the course Discrete Structures.

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

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

May 2024 – August 2024 **Busboy**
Pizzeria Moretti Griffintown, Montréal, QC
- Supported servers by cleaning tables, resetting place seetings, 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 study of the divergence of the Harmonic Series: [pdf]

December 2024 **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 – present **Personal Website**
- Coded a Personal Website using HTML and CSS.
- Post regularly my personal solutions to textbook exercises, articles that I write and reviews of Mathematical books.

Coding Skills

Programing Languages
- Python
- Java
- C
- Bash
- Assembly
- SQL

Markup Languages
- LaTeX
- HTML
- CSS

Languages

English (Fluent) French (Native) Arabic (Native)