LOUIS ROSSIGNOL
Phone: +33 7 82 21 55 60
Email: louis.rossignol01@gmail.com
LinkedIn: linkedin.com/in/louis-rossignol-50a3001a6/

EDUCATION

McGill University **September 2024 - August 2028**
Doctor of Philosophy (Ph.D), *Physics* *Montreal, Quebec, Canada*

McGill University **September 2020 - December 2023**
Bachelor of Science, Major Physics and Minor Computer Science *Montreal, Quebec, Canada*

University of Maryland **January 2023 - May 2023**
Exchange program *College Park, Maryland, USA*

PROFESSIONAL EXPERIENCE

McGill Physics Department **September 2024 - Today**
Doctoral Researcher *Montreal, Quebec, Canada*

- Conducting research supervised by Professor Hong Guo in Theoretical condensed matter physics.

McGill Physics Department **September 2024 - Today**
Teaching Assistant *Montreal, Quebec, Canada*

Fall 2024:
- Teaching assistant for PHYS230: Dynamics of Simple Systems

Winter 2025:
- Teaching assistant and ANS coordinator for PHYS 102 Introductory Physics - Electromagnetism
- Teaching assistant and ANS coordinator for PHYS 142 Electromagnetism and Optics
- Grader for MATH 262 Intermediate Calculus

Kastler Brossel Laboratory **January 2024 - July 2024**
Research internship *Paris, France*

- Conducted research supervised by Professor Quentin Glorieux at the Quantum Fluid of Light Group in machine learning for quantum optics measurements.
- Worked on applying deep learning techniques to develop new measuring tools for experimentalists.

McGill Tutoring Services **September 2022 - April 2024**
Tutor *Montreal, Quebec, Canada*

- Worked as a tutor for McGill undergraduate students in Physics, Engineering, and Mathematics in courses such as mechanics, electromagnetism, statistical mechanics, calculus, and linear algebra.

McGill Physics Department **September 2023 - December 2023**
Undergraduate Research Project *Montreal, Quebec, Canada*

- Conducted research supervised by Professor Michael Hilke at the Quantum Nano Electronics Laboratory (QNEL).
- Investigating the decoherence dynamics of Qubits coupled to a Su-Schriefer-Heeger (SSH) chain to probe the topological states of the chain.
- Presented a poster of my work at the 8th IEEE: Montreal Photonics Networking Event.

Institut national de recherche en informatique et en automatique (INRIA) **May 2022 - June 2022**
Research Intern *Nancy, France*

- Conducted research supervised by Dr. Marie-Dominique Devignes at the Computational Algorithms for Protein Structures and Interactions (CAPSID) team.
- Worked on applying recursive algorithms to generate, test, and sort new molecules.

OUTREACH

Building 21, McGill University **January 2025 - May 2025**
B21 Blue Residency Fellow *Montreal, Quebec, Canada*

- Selected as a fellow in McGill's interdisciplinary idea lab, Building 21, which supports bold, unconventional inquiry through its BLUE (Beautiful, Limitless, Unconstrained Exploration) residency. Participated in a cross-disciplinary cohort exploring creative and research-driven projects beyond traditional academic boundaries, with mentorship, workshops, and collaborative programming.
- Researched the project «Exploring LLMs to create new mathematical frameworks for condensed matter physics.»

SKILLS

- Programming: C, C++, Python, Java, TypeScript, OCaml
- Software: Matlab, Microsoft Office Suite, RESCU, NanoDcal, VASP
- Languages: French (Native), English (TOEFL IBT: 98/120), Spanish (high school level)