

Maëlle Magnan

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Education

University of Toronto

Honours Bachelors of Science (Astronomy and Physics Specialist, Mathematics Minor)

Toronto, ON, Canada

2022–2026 (Expected)

École Monseigneur de Laval Pavillon Secondaire

Bilingual High School Diploma

Regina, SK, Canada

2018 – 2022

Experience

Environment and Climate Change Canada

Data Analyst

Toronto, ON, Canada

Aug 2024 – Present

- **Analyzing environmental regulations** to extract, catalog, and standardize compliance variables across multiple governmental frameworks and developing a VBA-based search algorithm to efficiently sort and cross-reference these regulations.
- Collaborating with a **multidisciplinary team** to create controlled variable repositories, streamlining onboarding processes for new regulations.

Practical Astronomy

AST 326

Toronto, ON, Canada

Sept 2024 – Present

- Completing labs on photon statistics, radio astronomy, astronomical spectroscopy, supernova light curves, and 21cm astronomy.
- Performing **statistical modeling** using techniques such as linear regression, chi-squared statistics, Fast Fourier Transforms, centroiding, and time series analysis.
- Calibrating precision instruments including CCD/CMOS detectors, radio receivers, and spectroscopes to ensure accurate and reliable data collection.

University of Regina

Research Assistant

Regina, SK, Canada

Feb 2023 – Sept 2023

- Developed a pipeline in **Python** to analyze **satellite images** to assess the alarming exponential growth in satellite-caused light pollution and its adverse effects on astronomical imaging.
- Presented research findings during weekly meetings, effectively **communicating complex data** to peers and faculty.

Awards

New Technologies for Canadian Observatories Create Grant

NSERC

- \$ 8000, awarded to up to 70 undergrad and graduate students across Canada/year

2023

Howard Fergusson Scholarship

- \$ 3000, entrance scholarship

University College,
University of Toronto

2022

Technical Skills

Proficient in **Python**, specifically in astronomical **data analysis**. Experience using **LaTeX** for academic and professional document formatting, as well as **Linux command-line** operations. Native French and English speaker.

Presentations

Steadily increasing light pollution from artificial satellites in the night sky world-wide, and in astronomical observations

Virtual
October 2023

AAS Division for Planetary Sciences Annual Meeting

Samantha Lawler, Aaron Boley, **Maëlle Magnan**, Hanno Rein, Mike Alexandersen, Ying-Tung Chen, Wesley Fraser, Rosemary Pike
2023DPS....5511509L [🔗](#)

Volunteer Work

Collective Undergraduate Research Experience, University of Toronto

Toronto, ON, Canada

Event Director and Undergraduate Research Advisor

2024 – Present

- Hosting one-on-one **mentorship meetings** answering questions relating to student life and research opportunities.
- Organizing events focused on engaging students in the undergraduate research community (resume review sessions, undergraduate research presentations, coffee with professors, etc).

French and Francophone Student Association, University of Toronto

Toronto, ON, Canada

Equity, Diversity and Inclusivity Director

2024 – Present

- Directing Equity, Diversity, and Inclusion (EDI) initiatives fostering an inclusive community and promoting cultural representation.

Employment History

Craft Beer Market

Toronto, ON, Canada

Server

Mar 2024 – Aug 2024

- Memorized over 100 craft beers and various cocktails to provide tailored recommendations.
- Worked together with the rest of the FOH and BOH teams to orchestrate seamless service flow.

Hamers Coffee

Toronto, ON, Canada

Barista

Feb 2023 – May 2023

- Provided friendly service to build strong customer relationships.
- Memorized multiple artisanal coffee blends and prepared numerous beverages efficiently and accurately.
- Performed closing duties including dishes, cash-out, and cleaning protocols.

Fresh and Sweet

Regina, SK, Canada

Server

Aug 2019 – Aug 2022

- Delivered fast and friendly service to all patrons.
- Trained new staff members on restaurant protocols, proper food delivery, and guest service expectations.
- Performed opening and closing duties, including restocking supplies, daily cash in/out, and handling large sums of money.