

Yann Guérin

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ABOUT ME

I'm a data scientist with three years of research and consulting experience. I have a well-rounded data science skillset with a specialization in natural language processing. From research on interdisciplinary teams to teaching kids of all ages, I've built a proven ability to make complex ideas accessible to any audience. I bring the methodical rigor of a researcher and the agility of a consultant to every project, backed by the communication skills to make complex findings clear and actionable.

CONSULTING EXPERIENCE

Ontario Veterinary College, Guelph, ON – Web Design

December 2024 - February 2025

Developed a Wordpress website for the COHTPEZ project. Discussed and helped to refine website requirements with the project lead, Dr. Jane Parmley. Collaborated with the Program Manager to create and organize content for the website. Created a transition plan to the design strategy of a larger brand management consultancy.

Sunnybrook Health Sciences Center, Toronto, ON – Project Communications

May 2024 - October 2024

Discussed website requirements with the project lead, Dr. Samira Mubareka. Developed new pages and content for the Wildlife Emerging Pathogens Initiative (Wild EPI) website in collaboration with a Postdoctoral Research Associate on the team.

National Institutes of Health (NIH), Bethesda, MD – Simulation Modelling

January 2024 - February 2026

Microsimulation modeling project to analyse the role of luck and socioeconomic factors in health outcome models. Worked with an interdisciplinary research team led by Dr. Yukiko Asada (Bioethics, NIH, McMaster).

- Built a microsimulation model to simulate real world mortality and health outcomes.
- Visualised results of multiple simulations using Plotly and Jinja in an automated fashion.
- Communicated the technical results of the simulations and analyses to the team.
- Presented at the *Philosophy, Politics & Economics 2025 Conference* in London, UK.
- Co-authored a manuscript recently submitted to *Social Indicators Research*.

IWK Health, Halifax, NS – Bibliometrics & Document Analysis

November 2023 - January 2025

Information extraction project to analyse language use trends in obstetrics and gynecology research papers. Worked alongside Professor Jocelyn Stairs (Obstetrics and Gynecology, IWK Health).

- Used MetaMap to map biomedical text from papers to concepts in the UMLS database.
- Categorized papers using a custom approach, and analysed language use trends.
- Presented at the Dalhousie Dept. of Obstetrics and Gynaecology Research conference.
- First-author publication in the *Journal of Obstetrics and Gynaecology Canada*.

WORK EXPERIENCE

Dalhousie University | Maguire Lab, Halifax, NS – Research Assistant | Data Scientist

February 2023 - Present

SSHRC-funded computational social science project on the characterisation of radicalisation in online forums. Worked alongside Professor Finlay Maguire (Computer Science / Community Health & Epidemiology, Dalhousie) and Professor Michael Halpin (Sociology & Social Anthropology, Dalhousie).

- Led analyses for an actively being developed manuscript on user network graph analyses, topic modeling, language use trends, and social contagion of radical ideas.
- Automated the daily scraping of multiple online forums into a custom MongoDB database.
- Iteratively developed a web app and dashboard for exploratory data analysis and no-code database querying.
- Performed Topic Modeling on forum contents using LDA and BERTopic.
- Applied NLP techniques to analyse the use of terminology by users and Information Diffusion models to analyse the social contagion of radical ideas.

Code Ninjas, Halifax, NS – Lead Coding Instructor

October 2021 - February 2023 (part-time)

Managed the training and mentoring of a team of 12 Coding Instructors in technologies and operations. Managed the team and center operations 1-2 days a week. Taught Coding skills to groups of 10 children ages 7-16 through game design and development using JavaScript and Unity/C#.

Discovery Centre, Halifax, NS – STEAM Facilitator | Camp Counselor

March 2017 - September 2019 (part-time)

Facilitated a positive learning environment for all visitors. Performed and presented science experiments to visitors. Assisted with and led camp activities for the Digital Discovery Camp. Co-led Digital Discovery Camps in Bridgewater, Spryfield, and Yarmouth.

SKILLS

Fluent in **Python** (Pandas, Numpy, Matplotlib/Seaborn/Plotly, Requests/APIs...).

Proficient in **Databases** (SQL, MongoDB, Neo4j), **Dashboards & Web Apps** (Plotly Dash, Flask, Streamlit), **NLP** (NLTK, Spacy, Gensim), **Network Graphs** (NetworkX, Cytoscape, Gephi),

Web Scraping (BeautifulSoup, Selenium).

Knowledgeable in **LLMs & Transformers** (OpenAI, HuggingFace, SentenceTransformers),

Machine Learning (scikit-learn, pytorch), **Computer Vision** (OpenCV), **C/C++**,

JavaScript/HTML/CSS.

Bilingual (**French and English**).

Proficient in Microsoft Suite.