

Guillaume Genois

438 378-4120 | guillamegenois031@gmail.com | guillaume.genois.ca | github.com/Guigui031

EDUCATION

Master's Degree in Machine Learning <i>Mila - Quebec Artificial Intelligence Institute</i>	2025 – Present <i>Montréal, QC</i>
Bachelor's Degree in Mathematics and Computer Science <i>Université de Montréal</i>	2022 – 2025 <i>Montréal, QC</i>
Awarded excellence scholarships and research fundings	

PROFESSIONAL EXPERIENCE

Cloud and AI Web Solutions Advisor <i>Travel Direct Group</i>	Jun. 2025 – Present <i>Montréal, QC</i>
<ul style="list-style-type: none">❖ Deployed 80+ websites using Azure cloud infrastructure with Front Door, CDN, and App. Gateway❖ Assisted clients with DNS modifications, providing guidance and support for website deployments❖ Worked with Kubernetes containerization and WordPress Multisite CMS for scalable solutions❖ Identified system bugs and coordinated resolution with external partners for Meta API integrations❖ Led technical review of new AI-powered virtual assistant project for personalized offers❖ Enhanced team productivity through Jira and Confluence workflow implementation❖ Demonstrated flexibility, proactivity, and strategic insight to diverse tasks within a small-business	
Data Engineering Advisor <i>Desjardins</i>	May 2024 – Apr. 2025 <i>Montréal, QC</i>
<ul style="list-style-type: none">❖ Developed Python parser to extract field usage and sources from SQL and SAS queries❖ Automated impact analyses and data traceability processes for improved efficiency with the parser❖ Contributed to multidimensional model development using CI/CD practices❖ Implemented modernization solutions with Azure DevOps and SQL Server integration❖ Worked in Agile methodology within large organizational structure	
System Pilot <i>Québec Office of the French Language, Government of Québec</i>	May 2023 – Apr. 2024 <i>Montréal, QC</i>
<ul style="list-style-type: none">❖ Extracted and analyzed data using SQL programming for accountability reports❖ Responded to internal and media requests with data-driven insights❖ Coordination between internal clients and the IT team to resolve and validate system issues❖ Quickly learned Microsoft Access, Power BI, and internal organizational tools	
Badminton Coach <i>Badminton Lachine Club, Lachine, QC</i>	2020 – 2023
Kitchen Assistant <i>L'Oeufrier, Lachine, QC</i>	2022
Clinic Assistant <i>Dorval Podiatric Clinic, Dorval, QC</i>	2021

PROJECTS

RAG-Powered Cruise Booking Assistant | *LangChain, LangGraph, Groq, ChromaDB, Gradio*

- ❖ Built hybrid RAG system combining SQL database queries with vector similarity search
- ❖ Implemented React agent to orchestrate multi-tool workflows with conversation memory
- ❖ Deployed production web application with Gradio interface and nginx on rag.guillaume.genois.ca

Metadata Curation to Evaluate the Use of LLMs in SLRs | *RPA, HTML Parsing, Dataset*

- ❖ Built automated application to extract over 30,000 scientific articles from 8 major academic databases
- ❖ Developed custom HTML parser to systematically extract metadata from research publications
- ❖ Designed 16 usable datasets for LLM evaluation research on systematic literature review acceleration

Data Augmentation for Cell Segmentation using GANs | *PyTorch, Monai, U-Net, GAN*

- ❖ Developed GAN-based synthetic data generation strategies to address limited labeled data
- ❖ Integrated augmentation methods on U-Net architecture for weakly supervised cell segmentation
- ❖ Built complete training pipeline with initial 21-epoch experimental validation
- ❖ Established foundation for extended training and evaluation of segmentation improvements

TECHNICAL SKILLS

Languages: Python, Java, C, C++, C#, SQL, JavaScript, R, SAS, Bash, PHP

Tools: MatLab, Git, Docker, Google Cloud, Anaconda, Azure, DevOps, Kubernetes, WordPress, PowerBI

Libraries: Pandas, NumPy, Jupyter Notebooks, Scikit-learn, TensorFlow, PyTorch, NLTK, Monai, Selenium

OTHER INTERESTS

Competitive Badminton Player <i>For Badminton Lachine Club and for fun</i>	2012 - Present <i>Lachine, QC</i>
Volunteer for Harvest and Other Activities <i>Vignoble Aux Volets Noirs</i>	2015 - Present <i>Très-Saint-Sacrement, QC</i>
Non-Profit Organization’s Website Maintenance and Modernization <i>Club des personnes handicapées du Lac St-Louis</i>	2023 - Present <i>Lachine, QC</i>
Volunteer for Carlisopen Golf Tournament supporting Fondation En Coeur <i>Lac-St-Joseph Golf Club</i>	2023 - 2024 <i>Québec, QC</i>

REFERENCES

Available upon request