Gabriel Hardy-Joseph

 LinkedIn Website Github

Email : gabriel.hardy-joseph@outlook.com
Mobile : +1 (819) 213-6285

EDUCATION

HEC Montréal   2021 – 2025
Honours Bachelor's of Business Administration – Business Analytics and Finance
- Relevant coursework : Data Science, Python, Analytics, Linear Algebra, Linear Optimisation, Statistics.

Sogang University   2023
Student Exchange Program – Seoul, South Korea
- Member of the Taekwondo and running clubs, represented the university at the Seoul Shinmun Half-Marathon.

EXPERIENCE

HEC Montréal | *Intern, Research Assistant*   May 2025 – Present
- Developed **machine learning** models using eye-tracking features to classify cognitive load, achieving **80%** accuracy.
- Granted **NSERC Undergraduate Research Award**, for research in natural sciences and engineering (**$7,500**).

HEC Montréal | *Teaching Assistant*   Sep. 2025 – Present
- TECH 20704 : **Python Programming**. Graded student work and led weekly consultation sessions.

IBM | *Intern, Business Analyst*   Jan. 2024 – Dec. 2024
- Integrated **product analytics** into IBM offerings through research and functional requirements development.

TMX Group | *Intern, Business Analyst*   Sep. 2022 – Dec. 2022
- Analyzed **financial data** from approved participants to detect manipulative trading practices.

PUBLICATIONS

Hardy-Joseph, G., Bélanger, C., Karran, A. J., Coursaris, C., Sénécal, S., Leger, P. M., & Rolon-Mérette, T. Detection of Cognitive Load Using Eye Tracking and Machine Learning in the N-Back Paradigm. *Abstract presented at the NeuroIS workshop of America's Conference on Information Systems 2025 Conference, Montreal.* [In preparation]

Bélanger, C., **Hardy-Joseph, G.**, Karran, A. J., Coursaris, C., Sénécal, S., Leger, P. M., & Rolon-Mérette, T. A Deep Learning Approach for Detection of Visual Inhibition Using Eye Tracking and the Anti-Saccade Paradigm. *Abstract presented at the NeuroIS workshop of America's Conference on Information Systems 2025, Montreal.* [In preparation]

PROJECTS

EquityLens: AI-based Financial News Analysis | *Python, LangChain, OpenAI API, AWS ECS, Docker, Streamlit*
- Leveraged **LangChain**, **OpenAI API**, and **RAG** to build a tool for automated news article summarization.
- Developed **FAISS**-based vector search with **NLP** and **Newspaper3k** for automated retrieval and quote extraction.
- Deployed **Streamlit** on **AWS ECS Fargate** with a CI/CD pipeline (CodePipeline, Docker–ECR) and **Terraform**.

PremierPredict: Football Match Predictor App | *Python, XGBoost, Streamlit*
- Trained an **Extreme Gradient Boosting** machine learning model to predict outcomes of *Premier League* matches.
- Created an interactive web application using **Streamlit** which allows users to predict outcomes of upcoming matches.

EXTRACURRICULAR

HEC International Case Competitions Team | *Academic Delegate*   Feb. 2022 – May 2025
- Nine podium finishes in eleven case competitions, including three international (USA, Netherlands, Thailand).

HEC Data Science Committee | *Competitions Vice President*   May 2024 – Apr. 2025
- Led the *DéfIA 2025* competition with the CDPQ, conducting 40+ interviews and forming the top two winning teams.

HEC Trading Club | *Executive Vice President*   May 2022 – Apr. 2024
- Occupied a leadership position and was responsible for managing the club's projects, events, image and partnerships.

SKILLS

Tools: Python, SQL, R, Tableau, PowerBI, AWS, Terraform, Docker, VS Code, Github, Git, Excel, PowerPoint, Word.
Libraries: LangChain, Scikit-Learn, FAISS, Newspaper3k, NLTK, OpenAI API, Gym, Pandas, NumPy, Streamlit.
Languages: Fluent in written and spoken French and English.
Certifications: Stanford ML Specialization, DeepLearning.AI RAG Course, Microsoft Azure AI Fundamentals (AI-900).
Interests: Long-course triathlon, marathon swimming, bikepacking, boxing, graphic design, language learning.