

# Gabriel Hardy-Joseph

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## EDUCATION

### HEC Montréal

Expected graduation: December 2025

*Bachelor's of Business Administration – Business Analytics and Finance*

- Honours Program and Mention of Great Distinction.
- Member of the International Case Competitions Team, Data Science Committee and Trading Club.
- Relevant coursework : Data Science, Python, Business Analytics, Statistics, Web Analytics.

### Sogang University

Mar. 2023 – Jun. 2023

*Student Exchange Program – Seoul, South Korea*

- Member of the Taekwondo and running clubs, represented the university at the Seoul Shinmun Half-Marathon.

## EXPERIENCE

### IBM | Intern, Business Analyst

Jan. 2024 – Dec. 2024

- Advised senior leadership on Go-to-Market strategies for IBM's Open Payments Marketplace by conducting market and industry research, analyzing competitors, building consolidated slide decks, and delivering presentations.
- Conducted client-centric research on North American independent software vendors and financial institutions.
- Integrated product analytics into IBM offerings through research and functional requirements development.

### TMX Group | Intern, Systems and Data

Sep. 2022 – Dec. 2022

- Analyzed financial data from approved participants to detect manipulative trading practices.
- Developed a training program aiming to educate new employees about financial markets and regulatory concepts.
- Researched new tools to improve and automate the division's processes through Jira and Confluence.

## EXTRACURRICULAR

### Data Science Committee | Competitions Vice President

May. 2024 – Present

- Led a data-driven competition with the CDPQ, conducting 40+ interviews and forming the top two winning teams.

### University of Florida | Heavener International Case Competition – 2<sup>nd</sup> Overall

Feb. 2025

- Competed against 15 teams from prestigious universities worldwide, formed and presented strategic recommendations for the digitization of a global remittances company and the applications of VR technologies to treat chronic illnesses.

### Jeux du Commerce | Information Technology Case – 2<sup>nd</sup> Overall and Favorite of the Jury

Aug. 2024 – Jan. 2025

- Participated in weekly resolutions of 20+ IT-focused business cases, presenting in front of professors, coaches and various industry leaders to represent the university at the largest business case competition in Eastern Canada.

### KPMG | Ace The Case Regional Competition – First Overall

Feb. 2024

- Provided guidance on firm's expansion viability and acquisition potential, presenting insights to a judging panel.

### Deloitte | Community Case Competition (DC3) – First Overall

Nov. 2023

- Formulated and presented recommendations to guide a non-profit through the process of technology integration.

## PROJECTS

### Flappy Bird Reinforcement Learning Agent | Python, OpenCV, Stable Baselines 3

- Built a reinforcement learning agent using a DQN algorithm that learns to play Flappy Bird through trial and error.
- Created a custom game environment connecting to the web interface through screen capture and input simulation.
- Implemented reward structures to incentivize navigation and improve agent performance over time.

### Frozen Lake Stochastic Reinforcement Learning Agent | Python, Gymnasium, Jekyll, Git

- Implemented Q-learning in stochastic environments, demonstrating proficiency in reinforcement learning techniques.
- Analyzed performance across 15,000 episodes, revealing optimization patterns in uncertain environments.
- Authored a technical blog post documenting methodology, results, and insights from the project for knowledge sharing.

## SKILLS

**Tools:** Python, TensorBoard, SQL, Tableau, PowerBI, Jupyter, Visual Studio, PowerPoint, Excel, Git, Github.

**Libraries:** Pandas, Numpy, Matplotlib, Scikit-Learn, Pynput, Pytesseract, Gym, Stable Baselines, Cvxpy, Streamlit.

**Languages:** Fluent in written and spoken French and English.

**Certifications:** Stanford Machine Learning Specialization, Azure AI Fundamentals (AI-900).