# Marion Fechino

Montreal, QC -> Vancouver, BC (autumn 2025)

Languages: English, French

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Blog | LinkedIn

## **SUMMARY**

Data Scientist and Behavioral Analyst with 5+ years of experience applying cognitive psychology, NLP, and statistical modeling to analyze user behavior and generate actionable insights. Skilled in storytelling with data, building dashboards, and developing AI-powered tools that support decision-making across research and applied contexts.

#### PROFESSIONAL EXPERIENCE

## Data Analyst | Lasso Informatics

Montreal, QC | Aug 2024 - Present

- Collaborated with the top 1% neuroscientists from McGill, Harvard, MIT and other major US universities on the biggest longitudinal neuroscience studies ever made.
- Developed AI-powered agentic visualization agent using LangGraph and LLMs, enabling stakeholders to explore engagement data and generate actionable insights.
- Analyzed large-scale behavioral datasets, improving data quality pipelines and standardizing workflows reducing processing time by 30%.
- Designed Tableau metrics dashboards to monitor behavioral engagement guiding research decisions
- Validated cross-site studies compliance and data quality control
- Provided technical support to research and engineer teams

### **Maternity Leave**

May 2023 - Aug 2024

### Assistant Project Manager | EcoWaterLab Solutions

Montreal, QC | Dec 2022 - May 2023

- Built visualizations to track orders, buyers, stock, and recurring clients, improving operational visibility.
- Automated calculations with Excel macros, reducing manual workload by  $\sim$ 25%.
- Prototyped a geospatial tool to help the sales team identify and target new clients.
- Led stakeholder meetings and dashboard presentations to align tools with needs and deliver actionable insights.

### Doctoral Researcher (PhD Candidate) | Freie Universität Berlin

Freie Universität Berlin & Aix-Marseille University / 2018 – 2022

- Built algorithmic measures using NLP to predict user perceived appeal and sentiment of sonority and textual content transferable to player feedback and engagement insights.
- Built a large-scale, topic-specific corpus of thousands of books to develop vector space models, sentiment metrics, and text analytics tools.
- Designed large-scale behavioral studies involving over 2000 users
- Designed UX-style experiments (eye-tracking, cognitive modeling) to retrieve attention, perception, and decision-making metrics.
- Teaching statistics and cognitive psychology to over 200 students at Aix-Marseille University
- Worked in a multidisciplinary framework, linking cognitive psychology and informatics through dual supervision across both disciplines

## **RELEVANT SKILLS FOR PLAYER INSIGHTS & GAME ANALYTICS**

- Behavioral Data Analysis:
  - Expertise in building algorithmic measures using NLP to predict user perceived appeal and sentiment of sonority and textual content transferable to player feedback and engagement insights.
- Statistical Modeling:
  - o Proficient in inferential statistics, experimental design, and metric development to inform decision-making.
- AI
- o Skilled at creating AI-powered visualization agents using LangGraph and LLMs to automate insight generation.
- Experience building LLM agents that can customize player NPC dialogues, adapting responses and interaction depth to enhance immersion and engagement.
- Data Visualization & Storytelling:
  - o Skilled at building dashboards (Tableau, Altair, R) and translating insights into clear narratives for stakeholders.
- Natural Language Processing:
  - Skilled in designing scalable text analytics tools to help game teams systematically interpret player reviews and community feedback, guiding design decisions and quality improvements.
- Cross-Disciplinary Collaboration:
  - o Proven ability to bridge research, engineering, and stakeholder teams across multi-site studies.

#### **TECHNICAL SKILLS**

- Programming & Data Science:
  - Python (Pandas, Numpy, Scikit-learn, spaCy, gensim, transformers, matplotlib, seaborn, Altair, LangGraph), R (lme4, ggplot2, R Markdown), SQL (MySQL, SQLite)
- Visualization & Analytics:
  - o Tableau, AI-driven dashboards, Altair
- Machine Learning & NLP:
  - o LLMs (GPT-3.5/4, Claude, LLaMA), NLP (sentiment, topic modeling), MLOps pipelines
- Research Methods:
  - Experimental design, survey design, eye-tracking, mixed methods

### **EDUCATION**

Master of Cognitive Science (with Honors), specialization in Artificial and Human Cognition Grenoble-Alpes University & Phelma | 2016–2018

Bachelor of Psychology (with Honors) Grenoble-Alpes University | 2013–2016

Bachelor of Biology (with Honors)

Joseph Fourrier University | 2013–2015

#### **SELECTED PUBLICATIONS & TALKS**

- Fechino, M. et al. (2020). A neurocognitive poetics investigation of eye movements during Baudelaire's 'Les Chats'. *Journal of Eye Movement Research*.
- ECEM 2019: Visual Patterns in Poetry Reception Conference talk