

Emmanuelle Coutu-Nadeau, B.Sc., B.Eng.

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*Software engineering and psychology graduate with experience in digital health,
AI-driven research, and mentoring in education.*

Education

Master of Sciences, Psychology – Université de Montréal (GPA: 4.2 / 4.3)	2024 – Present (<i>expected 08/26</i>)
Bachelor of Software Engineering – McGill University (GPA: 3.7 / 4)	2018 – 2022
Bachelor of Science, Psychology (Honours) – McGill University (GPA: 3.8 / 4)	2015 – 2018

Work Experience

Product Owner & Project Manager – CareSimple	2022 – Present
<ul style="list-style-type: none">Led CHUM's research project as primary client contact; coordinated clinical and technical teams to implement remote patient monitoring (RPM) for liver transplant patients.Translated client needs into technical specs for a digital health platform in the Swedish market.Managed compliance documentation for Canadian and European health regulations.Built KPI reporting and analytics tools (Python, SQL) to support data-driven decisions.	
Software Developer – CareSimple	2020 – 2022
<ul style="list-style-type: none">Developed features in a web-based portal for clinicians to perform RPM (React, TypeScript).	
Data Science Intern – CareSimple	2019
<ul style="list-style-type: none">Analyzed patient health data using R and Python.Developed a preprocessing pipeline to standardize data for artificial intelligence algorithms.	

Research Experience

Neurosciences of Early Development Lab – CHU Ste-Justine (CRHSJ)	2024 – Present
<ul style="list-style-type: none">Master's Thesis: AI-driven analysis of EEG biomarkers in autistic children with and without known genetic variants.Led the redesign of the lab's database to improve scalability, integrity, and cross-study usability.Conducted pilot data analyses using Python and R (ANCOVA, SNR, HAPPE); collaborated with geneticists and neuropsychologists.Performed EEG and neuropsychological assessments on children with ASD and pediatric cancer.	
Marc O. Martel's Pain Lab – McGill University (MUHC)	2016 – 2019
<ul style="list-style-type: none">Honours Thesis: Association between perceived injustice and prescription opioid misuse through opioid craving.Conducted structured clinical interviews, data collection, and saliva sampling.	

Volunteering Experience

Software Development & Business Strategy Mentor – Technovation	2024 – Present
<ul style="list-style-type: none">Mentored girls (ages 8–18) in mobile app design and business plan development to address UN Sustainable Development Goals.	
Volunteer & Speaker – Fondation du Pensionnat Saint-Nom-de-Marie	2024 – Present
<ul style="list-style-type: none">Spoke at Career Day events and helped organize annual panels with alumni from diverse fields.	
Event Ambassador – Fondation du MAC	2024
<ul style="list-style-type: none">Promoted for <i>Printemps du MAC</i>, an initiative supporting the museum through fundraising events.	

Academic Awards & Scholarships

Neuro-AI UNIQUE Excellence Scholarship (10,000 \$)	2025 – 2026
MES Bourses de persévérance TI (3,000 \$)	2022
Airbus Scholarship in Engineering (1,500 \$)	2021
First-class Honours	2018

Skills

- Languages:** Fluent in English and French (spoken and written).
- Programming:** Python, Java, C, MATLAB, React, TypeScript.
- Data Analysis:** R, SQL, Power BI, Excel, Artificial Intelligence.
- Presentations:** Experience delivering client presentations using PowerPoint.
- Certifications:** PSPO I, HIPAA, GDPR, & Cybersecurity training.

Peer-Reviewed Publication

Verner, Maria MSc; Sirois, Amanda BSc; Coutu-Nadeau, Emmanuelle BSc; et al. *The Association Between Perceived Injustice and Opioid Craving in Patients With Chronic Pain*. Journal of Addiction Medicine, July 21, 2022.