### MAHAULT ALBARRACIN

INNOVATION DIRECTOR

#### **DETAILS**

#### **ADDRESS**

Montreal Canada

#### PHONE

(514) 998-0984

#### **EMAIL**

mahault.albarracin@gmail.com

#### LINKS

Google Scholar

Linkedin

#### SKILLS

Communication Skills

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Leadership

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Project Management

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Machine Learning

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Research

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Innovation

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Sociology

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Computational Neuroscience

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POMDP

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Bayesian Algorithms

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Jax

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Numpyro

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#### **PROFILE**

As a seasoned Director of Innovation and Product with a robust scientific background, I excel in steering product innovation with a sharp focus on active inference principles. My tenure has been marked by pioneering ethical frameworks in tech, evidenced by my influential role at VERSES and my scholarly contributions to cognitive computing. I bring a dynamic blend of strategic leadership and deep academic insight, ensuring that every product not only meets market demands but also advances the frontier of ethical research.

I specialize in harnessing the power of advanced machine learning technologies to drive product development and innovation. My expertise encompasses the end-to-end process of designing and deploying sophisticated machine learning models, leveraging cutting-edge tools such as JAX for high-performance machine learning, NumPyro for probabilistic programming, and POMDPs for decision-making under uncertainty. I have a proven track record in deploying large language models, and applying NLP and machine vision techniques to solve complex challenges across various sectors. My work is characterized by a deep commitment to pushing the boundaries of AI, underpinned by a solid foundation in Python and an innovative approach to product strategy and development. My contributions have not only led to groundbreaking products but have also set new industry standards for integrating AI ethically and responsibly.

#### **EMPLOYMENT HISTORY**

#### Director of Innovation, Hayden lab, VERSES.ai

Los Angeles

Nov 2022 — Present

Spearheaded the establishment of an AI research laboratory focused on Digital Twin and Active Inference research projects. Successfully secured external funding, leveraging technologies like JAX for high-performance computing and NumPyro for advanced probabilistic programming. My leadership in these projects demonstrates a commitment to innovation at the intersection of AI and ethical technology development.

### Research scientist, Computational phenomenology

Los Angeles

Mar 2021 — Nov 2022

Authored several pivotal research papers in peer-reviewed journals on the application of computational methods to phenomenology, contributing to the field with innovative approaches to understanding cognition and consciousness. This role underscored my expertise in applying complex mathematical models and advanced statistical techniques to unravel the nuances of human experience.

# Research Scientist with Maxwell Ramstead and Karl Friston, Department of Philosophy, Mcgill University

Montreal

Sep 2020 — Mar 2021

Collaborated on a groundbreaking research project with Maxwell Ramstead and Karl Friston, focusing on Active Inference frameworks. This collaboration resulted in

Pytorch

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Tensorflow

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#### LANGUAGES

English

French

significant advancements in the understanding of cognitive processes, highlighting my capacity to integrate interdisciplinary insights with technical proficiency in computational neuroscience.

#### Vice-President, Manifesto for Women in Tech

Montreal

Nov 2020 — Nov 2022

Advocated for diversity and inclusion in the tech industry, representing the organization at national and international platforms. While this role was more advocacy and leadership-focused, it underscored the importance of ethical considerations and inclusivity in technological advancements.

### Administrator of Pierre Poirier Research laboratory, Department ofPhilosophy, Université du Québec à Montréal

Montreal

Sep 2019 — Dec 2020

Coordinated research efforts, facilitating the integration of computational methods in philosophy research, demonstrating my organizational skills and the ability to foster interdisciplinary research that bridges the gap between technology and humanities.

CTO, Sexualis Montréal

Jan 2018 — Jan 2021

Led the development of a cloud-based ed-tech and tele-health platform, incorporating Al and ML technologies to enhance user experience and operational efficiency. My role was instrumental in deploying innovative solutions that leveraged data analytics and machine learning to drive business value and improve service delivery.

# Research Assistant, PsychoSexual (DESAJ) Department of Sexology, University du Quebec a Montreal

Montreal

Sep 2015 — Feb 2016

Assisted in developing experiments that utilized statistical analysis to enhance the accuracy and reliability of research findings, showcasing my early engagement with applying technological solutions to research challenges.

#### EDUCATION

### Associated researcher, Institut de Sante et Societe, UQAM

Montreal

Nov 2023

### Doctor of Philosophy (Ph.D.) in Cognitive Computing;, Université du Québec à Montréal

Sep 2020

## Feminist research Minor, Institut de Recherche et d'Études Féministes

Montreal

Nov 2015 — Nov 2019

# Master of Arts in Social Sciences, Université du Québec à Montréal (UQAM),

Sep 2015 — Dec 2019

# Bachelor of Arts in Social Sciences, Université du Québec à Montréal (UQAM),