# Thierry Jean CV académique

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#### Introduction

I use machine learing to develop clinical tools in psychiatry. I aim for a career in data science with the engineering skillset to shape ideas into impactful solutions.

### **Employment Experience**

May 2022 - Now

MoovAI

# Internship, Data Scientist

Worked primarily on developing a model for dynamic bidding for an ad exchange.

- Scope business problems as solvable machine learning use case:
- Implement reproducible pipelines and experiment tracking harness;
- Write clean and well-documented Python code;
- Deploy solution client cloud infrastructure (Snowflake, AWS);
- Work in project team (data scientist, data engineer, project manager) using Agile methodology;
- Prepare and present consulting reports;
- Contribute to internal MLOps tooling and best practices guides.

May 2020 - February 2021

SuccessFinder

#### Internship, Research and development

- Lead 3 research projects resulting in new products;
- Design and administer **surveys and systematic interviews** to **manager and C-level stakholders** about specific roles in the financial sector;
- Analyze qualitative and quantitative data;
- Share results internally and write white papers (FR/ENG);
- Create and deliver PowerBI dashboards for external clients.

LinkedIn recommendation

March 2019 – January 2020

Université de Montréal

# Research assistant, social psychology

- Recruit participants;
- Complete literature reviews, and establish research protocols;
- Conduct group experiments with human participants.

September 2016 - August 2019

OptimumTalent

# **Administrative assistant**

- Support consultants in their mandate (e.g., scheduling, billing, expenses, client coordination);
- Proofread and translate corporate documents;
- Draft reports for psychometric evaluation.

LinkedIn recommendation

# Research Experience

September 2021 - Now

#### **CR-IUSMM**

#### Master's student researcher

Our multi-disciplinary lab developed an Android app to monitor and predict psychiatric symptoms from smartphone sensors. In parallel, a **startup** is being created.

- Data mine "social behaviors" from multimodal multivariate time series (e.g., Bluetooth, Wi-Fi, call logs) using Python;
- Employ **self-supervised learning** to create user embeddings;
- Run batch computing script on Béluga scientific computing cluster (Calcul Québec);
- Ensure reproducible methodology with Git version control and Hydra logging.

September 2020 - September 2021

**CR-IUSMM** 

# **Undergrad Honor thesis**

On the same topic as my Master's:

- Create XGBoost and LSTM models to forecast next-day stress and happiness levels;
- Implement prediction explanations using SHAP;
- Conduct post-hoc statistical analysis;
- Present results at conferences. Github repository

May 2019 - May 2020

#### JIRIRI et NCACN

#### Editor for peer-reviewed scientific journals

- Review and evaluate manuscripts;
- Correspond with authors and share recommendations;
- Train external reviewers.

#### **Technical Skills**

- Proficient Python, numpy, pandas, sklearn, XGBoost, LightGBM, Kedro, Optuna, ONNX, Hydra, PowerBI
- Familiar PyTorch, PostgreSQL, DAX, M, AWS, REST API, webapps (plotly Dash, streamlit)
- Beginner Dask, JavaScript, Bash, Docker, Kubernetes, Spark
- Tools Git, Jupyter, conda, JIRA

# Education

2021 – 2023	M.Sc., Biomedical Sciences, option Computational Medicine Université de Montréal
2019 – 2021	B.Sc. Hon., Psychology, GPA: 4.16/4.3 Université de Montréal
2020	<b>Exchange Semester</b> Maastricht University, Faculty of Psychology and Neurosciences

2021	<b>Recruitment scholarship - 4000\$</b> Faculty of Medecine - Université de Montréal
2021	Master's scholarship (2021-2022) - 17500\$ Canadian Institutes of Health Research (CIHR)
2021	<b>Master's scholarship (2021-2023) - 35000\$</b> Fonds de recherche du Québec - Santé
2021	Best communication, Undergrad (Honor) - 350\$ 14th Annual scientific day of the Psychology department at l'Université de Montréal
2021	<b>3rd best communication - 500\$</b> Annual research day 2021, Research Center of Montreal's Institute form Mental Health
2021	<b>Team MVP - TD Assset Management</b> Industrial Problem Solving Workshop 2021, Centre de recherche en mathématiques, and IVADO Slide deck
2021	<b>Best debatter, and Winning team</b> Télé-Coupe 2020-2021, Ligue de débat universitaire et collégiale
2020	<b>Microsoft Sponsor Prize - 100\$</b> McGill AI Society Hackaton 2020, Microsoft Representatives
2020	<b>Recognition of involvment in student life</b> Vice-rector of student affairs, UdeM
Scienti	fic Publications
10-202	21 <b>Santé mentale au Québec</b> Le phénotypage digital pour une pratique clinique en santé mentale mieux informée. Link to article

Scientific Communications		
05-2022	Congrès annuel - ACFAS Mesurer et prédire le stress et l'humeur grâce au téléphone intelligent	
10-2021	Octobre Numérique - IVADO Phénotypage digital : prédire le stress et l'humeur futurs grâce au téléphone intelligent Youtube Link	
10-2021	Annual Congress of the Société Québécoise de Recherche en Psychologie Prédire l'humeur et le niveau de stress futurs à l'aide de données acquises par une application mobile	
06-2021	<b>Annual Research Day of the CR-IUSMM</b> Prédictions interprétables du stress à l'aide de données de phénotypage digital	
05-2021	Annual Scientific Day of the Psychology Department Prédictions interprétables des états d'humeur et de stress futurs sur base de données de phénotypage digital	

#### Student Involvements

August 2021 - Now

Student committee - IVADO

#### **Event manager**

Plan and organize events (conferences, lunch & learn, workshops) with invited professors and speakers for the student community.

April 2020 - Now

Ligue de débat universitaire et collégiale

# **University Representative**

- Represent all universities on the administration council (UdeM, McGill, UdeS, uLaval, Concordia, UQAM, ESG);
- Adapt debate activities to an online format, and setup the technological infrastructure.

April 2019 - April 2020

Debate Team - Université de Montréal

#### **Treasurer**

- Administer the finances of the student group;
- Organized a 2-days tournament on campus with more than 70 participants
- Lead institutional partnerships including speech contest "Délie ta langue!", and a workshop for the program "Leadership Étudiant".

#### Courses

2022	Concepts and Methods in Epidemiology, Data Science for Public Health
2021	Fundamentals of Machine Learning (MILA), Foundations of Computational Medecine, Data Science (MILA), Contemporary Issues in Scientific Methodology
2020	Discrete Mathematics, Advanced Statistics

# Langagues

French	First language
English	Fluent both spoken and written (B2 Level)

#### About me

Born in Montréal, I love my city for its museum, concerts, parks, and restaurants. Immensily curious and driven, I thrive in environments where people share their critical perspective, and work hard towards a common goal.