# Raphaël Christin

**EDUCATION** 

McGill University Sep 2019 – May 2022

Bachelor's of Arts & Science

• Major: Honours Cognitive Science, Minor: Computer Science, 3.67/4.00 GPA.

Relevant Coursework: Algorithms and Data Structures, Software Design, Al, Applied ML, Computational Linguistics.

SKILLS

Languages: Python, Java, Ruby, HTML, CSS, Javascript, MATLAB, C

Technologies: Ruby on Rails, React.js, Pandas, Scikit-learn, Numpy, TKinter, Git, LATEX

EXPERIENCE

Research Assistant Sep 2021 – Apr 2022

Flores Lab (PI: Prof. Cecilia Flores)

Montréal, QC

- Automated control group schedule generation for mice in the chronic social defeat stress paradigm.
- Used **Pandas**, **TKinter**, and **Python** to develop a GUI tool to be used by a lab of 10 people.
- Can save 30 min of work per experiment.

Research Assistant Sep 2020 – Apr 2021

Biosignal Interaction and Personhood Technologies lab (PI: Prof. Stefanie Blain-Moraes)

Remote

- Investigated the effects of using different graph generation and thresholding methods from EEG recordings applied to the analysis of consciousness.
- Used MATLAB and Compute Canada servers to perform the analysis.

## **PROJECTS**

#### **Twwitter**

 Used Ruby on Rails, HTML, and CSS to implement a minimal version of Twitter with posting, editing, timeline, and authentication.

## fashion-MNIST Neural Network Classifier

- Implemented a **multi-layer perceptron (MLP)** from scratch using **Numpy** and a **CNN** using **Pytorch** to classify the fashion-MNIST dataset.
- In a team of 3, compared different architectures and hyperparameters to improve performance of both models.
  Achieved a test accuracy of 88% for the MLP, and 91% for the CNN.

## Simplified Go Al Agent

 Implemented an agent using Monte-Carlo tree search to play a simplified version of Go in a tournament against other students. Achieved a 99% win rate against a random agent.

#### ACTIVITIES

# **Computer Science Undergraduate Society Helpdesk**

Jan 2021 - Apr 2022

**Tutor** 

• 90 hours of tutoring undergraduate students in total.

## **McGill University Ultimate Team**

Sep 2020 – Dec 2021

Co-Captain

- Helped organize a team of 23 players for competitions, including the Canadian University Ultimate Championships.
- Effectively communicated with a diverse group of players, coaches, and tournament officials.

# **A**WARDS