Raphaël Christin

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EDUCATION

McGill University   Sep 2019 – Apr 2022 (Expected)
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, AI, Applied ML, Computational Linguistics.

SKILLS

Languages: Python, Java, Ruby, HTML, CSS, Javascript, MATLAB, C
Technologies: Ruby on Rails, 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

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 AI 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.

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

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.

AWARDS

2021, 2022 McGill TEAM Mentorship Award