Brenda Namuhoranye

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Education

Bachelor of Arts and Science, McGill University, Montreal, QC, Canada. **Sept. 2019- Dec. 2022**

- Major: Honours Cognitive Science, concentration in Computer Science
- Minor: Computer Science

Diplôme d'études collégiales, Dawson College, Montréal, QC, Canada **Sept. 2017 - May 2019**

- Program**:** Pure and Applied Science

Work Experience

The Canadian Press **Mar. 2023 - Present**

Software Engineer

- Developing robust software components to enhance news delivery and content management applications using Python, AWS, MongoDB, Angular, and REST APIs.
- Leveraging NLP technology to extract gender representation insights from news stories and creating interactive dashboards with AG Grid to visualize the results.
- Conducting in-depth data analysis for journalists, i.e examining court transcripts, and utilizing Plotly to effectively present findings.

AI4Good Lab **May 2023 - June 2023**

Machine Learning Fellow

- Co-developed "Hide-It," a machine learning Chrome extension that detects triggering content on Reddit, enhancing user safety and experience.
- Presented the product to a diverse group of stakeholders during Demo Day, effectively communicating its value and impact.
- Actively participated in industry conferences and workshops led by experts, gaining insights into cutting-edge machine learning techniques throughout the intensive 6-week program.

Bagot Behavioural Neurogenomics Lab **Sept. 2021 - May 2022**

Undergraduate Researcher

- Analyzed fiber-photometry and behavioural data to investigate the integration of outcomes over time in reward learning.
- Extensive use of Pandas, NumPy, Seaborn python libraries
- Summarized findings in honours thesis paper

Montreal Neurological Institute **June 2018 - Aug. 2018**

Intern under Dawson Neuroscience Research Group

- Cleaned and processed clinical data using Python (Pandas) to support research.
- Delivered weekly presentations with fellow interns, sharing key learnings.
- Presented the IBIS mission and team learnings at the final poster symposium.

Extracurriculars

CSUS Helpdesk, McGill University **Jan. 2023 - Apr. 2023**
Tutor

- Answer drop-in questions regarding assignments and course material
- Review and help debug students' code

Cognitive Circuits, Undergraduate Research Journal at McGill **Sept. 2022 - Apr. 2023**
Editor

- Edit undergraduate research papers concerning, computer science, neuroscience, psychology, linguistics, and philosophy
- Interview graduate students about their research in these fields

McGill Biomechanics Club, Wearable Tremor Suppression Glove **Apr. 2022 - Apr. 2023**
Captain of Electrical Team

- Oversee operations of electrical team
- Define project timeline, targets, and deliverables with Project Lead
- Lead Inertial Measurement Units (IMU) Selection
- Lead the implementation of adaptive algorithms (WFLC, BMFLC) for tremor modelling (Python)

Girls Who Code, McGill Chapter **Jan. 2022 - Apr. 2022**
Facilitator

- Curated an introductory coding curriculum for girls between the ages of 9 - 12
- Prepared presentations showcasing women in STEM

Personal Projects

Secret Library (ReactJS, AWS)

- Developed a full-stack book club website enabling members to anonymously share intimate reflections.
- Built a minimalist front-end with ReactJS for a dynamic, responsive experience.
- Implemented a real-time voting poll for book selection.
- Integrated AWS API Gateway and DynamoDB for a scalable backend to manage votes and user reflections.

GenePath (Python [Plotly])

- Developed a Plotly web application to visualize and find the shortest path between multiple locations based on postal codes.
- Using Google maps API to determine address, distances and X to display proprotiantly on 2d graph
- Implemented a genetic algorithm to optimize the pathfinding process, providing efficient solutions for route planning.

Hide-It (Python, HTML,CSS)

- Trained a Support Vector Classifier (SVC) model using scikit-learn to detect distressing reddit content based on user’s preferences. Achieved 86% accuracy.
- Implemented a Flask API to serve the model, providing scalable and secure access.
- Developed the front end of the chrome extension using HTML, CSS, Javascript.

Visual ML Demo (JavaScript [d3.js], Python, HTML, CSS)

- Developed a web application to visualize fundamental machine learning models, including Linear Regression and Support Vector Machine (SVM).
- Wrote Python script that generates weights and costs per epoch for each model

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Skills/Interests

- Programming languages (in order of proficiency): Python, SQL, JavaScript, CSS/HTML, Java
- Frameworks (in order of proficiency): React, Angular
- Bilingual (English and French)
- Interests: Software Engineering, Computational Neuroscience, Machine Learning