Arpan Saha

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EDUCATION

McGill University | Montreal, QC, Canada

Expected Graduation: August 2025

B.A. in Computer Science with minor in Statistics

- Leadership Roles: VP IT at Student Research Initiative club (SRI McGill); Volunteer, Care Through Tech
- Contributed to the Complex Data Lab project 'Quantifying learning-style in effectiveness of LLM teaching' by analyzing LLM responses and designing student surveys to extract actionable insights on learning preferences
- Relevant Courses: Database Systems, Software Design, Functional Programming, Applied Regression, NLP

SKILLS

Programming Languages: Python, Java, JavaScript, TypeScript, R, C++, SQL

Frameworks & Tools: React, Next.js, Flask, Node.js, TailwindCSS, PostgresSQL, Docker, AWS EC2, Bash, Git

Libraries: NumPy, Pandas, PyTorch, TensorFlow, Scikit-learn, Selenium, Matplotlib, JUnit

EXPERIENCE

Web Developer May 2022 - May 2025

McGill University HR | Montreal, QC, Canada

- Revamped over **2,000 webpages** using **Drupal CMS**, significantly improving accessibility and user experience.
- Led a major site revamp, increasing user engagement by **350%** (from 15k to 65k monthly users) through improved content architecture and on-page SEO strategies.
- Created dynamic **Google Looker Studio dashboards** leveraging **Google Analytics** and **Search Console** to track SEO KPIs, user behavior, and performance trends.
- Automated repetitive processes using Python scripts, enhancing efficiency and reducing manual workload
- Collaborated with multiple departments to deliver technical support, conduct training sessions, and generate regular reports on web analytics and improvement opportunities.

ML Engineer

Dec 2022 - April 2023

McGill University | Montreal, QC, Canada

- Developed **convolutional neural network** model to segment medical images in soft-tissue sarcoma research.
- Collaborated with Dr. James Tsui to develop and evaluate ML models, presenting data-driven insights to optimize radiotherapy planning for cancer treatment.

PROJECTS

Siloing of Political Thought in Social Media github.com/ArpanSaha07/Siloing-of-Political-Thought-in-TikTok

- Investigated silo formation in TikTok algorithms by simulating user interactions with Python scripts.
- Authored a research <u>paper</u> reviewed by Prof. Joseph Vybihal, highlighting findings on content clustering.

FITnFLEX https://github.com/visnunathan8/FITnFLEX

- Created a wellness app to track fitness, meditation, and dietary habits with real-time feedback.
- Integrated OpenCV, Angular, Flask, MySQL and Google OAuth for a seamless user experience.

SignLingo https://github.com/abrarfuad27/SignLingo

- Developed interactive Sign Language learning app using **React, Flask, SQLite, TensorFlow, and Docker**.
- Implemented hand gesture recognition using CNNs, with real-time practice sets and feedback.

Chelf https://github.com/smrahman1/Chelf

- Built an inventory management app recommending recipes based on available ingredients.
- Technologies used: Python, React, Flask, PostgreSQL, Figma. Developed with a team of four at McHacks Hackathon 2023.

MoodMusic https://github.com/ArpanSaha07/MoodMusic

 Created a chatbot that detects mood based on an input text, and recommends personalized songs based on user's mood and preferences. Tech used: JavaScript, NodeJS, Spotify API; Libraries used for mood detection model: Scikit-learn, NLTK, Pandas.