Amgad Sherif

📞 **(873) 200-3728** | ✉ **amgad.elgamal@mail.mcgill.ca** | 🔗 **Amgad Sherif** | 🖥 **Portfolio** | 📍 Montreal, QC

EDUCATION

McGill University – Montreal, QC   **August 2022 - Present**
*Bachelors of Engineering in **Software Engineering Co-op** | **Expected Graduation Date:** April 2026*

SKILLS

Programming Languages: Python, Java, HTML/CSS, JavaScript, VHDL
Miscellaneous: Machine Learning, Data Analysis, ElasticSearch, Quartus, Git, Express.js, Node.js, MongoDB, React, TensorFlow, OpenCV, Keras
Spoken Languages: English, French, Arabic

EXPERIENCE

BeauT – Beauty and Tech Startup   **August 2023 – Present**
Software Developer (Part-Time)   *Montreal, QC*
- Leveraging the **MERN stack to architect a ground-up CMS**, with **MongoDB** for data persistence, **Express.js** for routing, **React** for the frontend interface, and **Node.js** ensuring a cohesive backend structure.
- Utilizing **TensorFlow** and **OpenCV** for enhanced facial recognition in BeauT's platform.
- Prioritizing data security with **JWT authentication** and **MongoDB's encryption-at-rest** to protect client information and maintain platform stability.

Ambient Intelligence Lab (AMI-Lab) | Université de Sherbrooke   **May 2023 – August 2023**
Data Science Intern   *Sherbrooke, QC*
- Advanced a medication deprescription study, processing **300M**+ JSON and CSV files using Python's **Pandas, NumPy, and MATLAB** for vital medication metrics.
- Led data extraction from **ElasticSearch** with Kibana Query Language (**KQL**) and developed a real-time algorithm, efficient for processing upwards of **100M**+ data files, to decode fibre-optic sensor bed mat data through **signal processing**.
- Utilized **linear regression** for heart rate analysis and deployed **LSTM models** in **TensorFlow** & **Keras** for physical activity pattern recognition, optimizing hyperparameters.

PROJECTS | 🖥 PORTFOLIO

"Cloudnerd" – **ML-based Weather Forecasting Application** | **HEP 2022** 🔗   **June 2022**
- Crafted a **React** and **TypeScript** web app that interprets cloud patterns for weather forecasting.
- Integrated a **TensorFlow** machine learning model trained on extensive climatological data.
- Deployed **Firebase** for backend services, ensuring secure, real-time UI updates.
- Demonstrated strong performance, with an impressive **84% accuracy rate** in weather prediction, underscoring the model's proficiency in analyzing complex meteorological patterns.

"Shazoom" – **Song lyric recognition web app** | **Hackathon Award Winner** 🔗   **October 2022**
- Designed a speech-recognition UI that identifies user-sung songs and retrieves top matches.
- Employed **Python** and **Flask** for backend development, **HTML/CSS** for content structuring, and **JavaScript** for dynamic frontend interactions.
- Integrated several **speech-recognition APIs** to cross-verify lyrical inputs, boosting song identification accuracy.

"Jouan" – **Diet-Based Restaurant Locator Chabot** | **McHacks** 🔗   **February 2023**
- Built an interactive chatbot to identify user dietary preferences and locate nearby suitable restaurants.
- Used **Python** and **Google Maps API** for backend development and restaurant data retrieval.
- Frontend constructed with **JavaScript**, **CSS**/**HTML** for a user-friendly interface.

LEADERSHIP

President - Egyptian Student Association (ESA) | McGill University   **Jan 2023 – Present**
- Directed the association's vision, overseeing internal communications, event coordination, and initiatives that promoted Egyptian culture within the university community.

Amgad Sherif

📞 **(873) 200-3728** | ✉ **amgad.elgamal@mail.mcgill.ca** | in **Amgad Sherif** | 🖥 **Portfolio** | 📍 Montreal, QC

- Managed association governance, ensuring conflict resolution, facilitating member dialogues, and providing leadership to sub-committees for optimal performance.