Jawdat Al-Jabi

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Education

McGill University Montréal, QC
Bachelor of Electrical Engineering — Minor in Applied AI ***(GPA: 3.8/4.0)*** *2023 – 2027*
Relevant Courses: Machine Learning, Computer Vision, Natural Processing Language, Reinforced Learning

Work Experience

AI Software Developer Intern May 2025 – August 2025
UKG *Montréal, QC*

- Engineered advanced **Retrieval-Augmented Generation (RAG)** pipelines using **LangChain** and **Google Vertex AI**, improving document query relevance by **40%**.
- Automated **RAG** document ingestion by hosting internal files on **Google Cloud**, semantically chunking them for embedding into **MongoDB**, and maintaining metadata for **10,000+ records** in **MySQL**.
- Built and deployed **15+ task-specific Agents** using **LangGraph** and **LangChain**, orchestrating **REST APIs** and internal tools via **FastAPI** to enable dynamic, goal-driven workflows.
- Designed a modular **Agentic RAG service** that combined **multi-step retrieval and reasoning**, enabling agents to **iteratively select and invoke** multiple **API tools**, reducing incorrect or incomplete responses by **60%**.
- Integrated a **Redis-backed semantic caching** layer to eliminate redundant LLM calls, cutting token usage by **60%**, improving response speed by **23x**, and saving **$200K+** annually in inference costs.
- Containerized all services with **Docker** and deployed across **Kubernetes clusters**, achieving **99.9%** up time.
- Tested and documented **RESTful APIs** using **Postman** and **Swagger** to validate proper functionality.

Machine Learning Member Sept. 2024 – Present
McGill AI Lab *Montréal, QC*

- Designed and trained **convolutional neural networks** in **PyTorch** and **TensorFlow** for *MNIST digit classification*, achieving **98%+ accuracy** via dropout, batch normalization, and hyperparameter optimization.
- Identified key performance bottlenecks using **Matplotlib** visualizations, improving model convergence rates.

Software Intern May 2024 – August 2024
Biomomentum Inc. *Laval, QC*

- Engineered a real-time signal processing pipeline in **Python** for biomechanical testing hardware, reducing latency by **80%** via **multithreading** and **algorithmic optimization**.
- Automated **QA** workflows in **Python**, cutting manual testing effort by **25%** and enabling **CI/CD** integration.

Extracurricular & Leadership

System Manager — *McGill Robotics* Sept. 2024 – Present

- Led a **15 member** software team, overseeing system architecture and improving task completion by **30%**.

Software Engineering Member — *McGill Robotics* Sept. 2023 – Present

- Built real-time coordination scripts and debugging tools in **Python**, **C**, and **C++** enabling efficient control of **20+ hardware components** and reducing troubleshooting time by **40%** for **50+ robotics members**.

Projects

AI Stock Market Predictor | *Python, TensorFlow, Keras, Pandas, Matplotlib* January 2025

- Built an **LSTM-based web app** for stock prediction with **90%+ accuracy** on real financial data; analyzed inter-stock correlations to improve reliability by **40%** by using a **cross correlation matrix**.

Car Dealership Chatbot | *Python, SpaCy, Pandas, MongoDB, Matplotlib* November 2024

- Built a live **NLP** chatbot with custom **NER** and **SA** models trained on **600+ domain phrases**, cutting user search time by **90%** and boosting intent recognition to **95%**.

Technical Skills

Languages: Python, C/C++, Java, VHDL, Verilog, SystemVerilog, BASH, HTML
Libraries/Frameworks: LangChain, LangGraph, PyTorch, Tensorflow, NumPy, Pandas, Matplotlib, SQLAlchemy
Developer Tools: GCP, Docker, Kubernetes, Postman, Swagger, MySQL, MongoDB, Grafana, Redis, Git, GitHub