

Jawdat Al-Jabi

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EDUCATION

McGill University Montreal, Quebec, Canada
Bachelor of Electrical Engineering — Minor in Applied Artificial Intelligence (GPA: 3.8/4.0) 2023 – 2027
Relevant Courses: Machine Learning, Computer Vision, Natural Language Processing, Reinforced Learning

WORK EXPERIENCE

AI Software Developer Intern May 2025 – August 2025
UKG Montreal, Quebec, Canada

- Engineered advanced **Retrieval-Augmented Generation (RAG)** pipelines in **Python** by using **LangChain** and **Google Vertex AI**, improving document query relevance by **40%**.
- Automated ingestion of **10,000+ internal files** on **Google Cloud Platform** by chunking and embedding into **MongoDB** with **MySQL**-backed metadata, streamlining **RAG** document retrieval.
- Built and deployed **15+ task-specific Agents** in **Python** by 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%**.
- Applied **Object-Oriented Programming** to **RAG** and **Agent** architectures, enabling scalable orchestration, cleaner **API integration**, and more maintainable code.
- 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.

Software Developer Intern May 2024 – August 2024
Biomomentum Inc. Montreal, Quebec, Canada

- 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

Machine Learning Researcher — McGill AI Lab Sept. 2024 – Present

- Designed and trained **deep learning models** in **PyTorch** and **NumPy** for *MNIST digit classification*, achieving **98%+ accuracy** via dropout, batch normalization, and hyperparameter optimization.

System Manager — McGill Robotics Sept. 2024 – Present

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

Software Developer — 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**.

Teaching Assistant — Marianopolis College Jan. 2024 – Dec. 2024

- Graded assessments and assisted in delivering college Physics courses for **150+ students**.

PROJECTS & HACKATHONS

🔗 **AI Stock Market Predictor** | *Python, Dash (Plotly), TensorFlow, Keras, Pandas* January 2025

- Built an **LSTM-based** stock prediction web app with an interactive **Dash (Plotly) frontend**, achieving **90%+ accuracy** on real financial data and improving reliability by **40%** through cross-correlation matrices.

🔗 **Car Dealership Chatbot** | *Python, React, Next.js, CSS, SpaCy, Pandas, MongoDB, Flask* November 2024

- Built a live **NLP** chatbot with custom **Named Entity Recognition** and **Sentiment Analysis** models, featuring a responsive **React/Next.js frontend**, cutting user search time by **90%** and boosting intent recognition to **95%**.

TECHNICAL SKILLS

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