

Charbel Tournieh

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WORK EXPERIENCE

Gabriel & Co

AI & LLM Engineer

Jun 2024 – Ongoing

New York, US (Remote)

- Designed and optimised production-grade system and task prompts for a B2B LLM chatbot, enforcing structured outputs and reducing hallucinations, improving response performance by 25% through A/B prompt testing and evaluation cycles.
- Architected multi-step LLM workflows with context management, tool/function integration (24+ internal functions), and self-verification/self-correction mechanisms to improve reasoning reliability.
- Built and integrated 10+ production APIs connecting LLM outputs to backend systems, enabling scalable, structured content pipelines across the platform.

CMA CGM

Data Strategy & Engineering

Jan 2025 – Oct 2025

Marseille, FR (Remote)

- Enhanced clustering models for customer segmentation and route analysis, improving targeting accuracy by 25% through data-driven experimentation and model refinement.
- Managed 2 core data products: a Loyalty Program (100K+ users) and Alphaliner (100+ competitor routes & financials), translating product needs into data/ML solutions.
- Built ETL pipelines and automated dashboards for 50+ KPIs, reducing reporting time by 40% and giving stakeholders real-time visibility.

Meta (Research Collaboration)

AI and LLM Researcher

Jan 2024 – Jan 2025

California, US (Remote)

- Key member of a 7-researcher team on a Meta-funded research project led by Dr. Mariette Awad, on AI-driven ECG analysis.
- Improved AI ECG reading accuracy by 20% through model evaluation, behavioural analysis, and multimodal prompt/context experimentation and contributed to a multimodal model for high-accuracy ECG reconstruction and Atrial Fibrillation (AFib) prediction.
- Collaborated with clinicians and engineers to design AI-driven solutions for pediatric ECG analysis, conducted systematic model evaluation, benchmarking, and experimental validation to assess performance and adapt algorithms for production.

BMB Group

Software Engineering Intern

Nov 2023 – Feb 2024

Baabda, LB

- Developed with PepsiCo a .Net Maui Blazor application reducing initial package size by 30% and optimizing target devices.
- Conducted research on .Net frameworks, aiding the transition to newer technologies and increasing efficiency.
- Implemented an offline SQLite database for Android, enhancing user experience and addressing security vulnerabilities.

Intalio

AI Engineering Intern

Jul 2023 – Oct 2023

Naqqache, LB

- Engineered a Flask-based API managing 100+ daily image processing and text detection requests.
- Attained 97% accuracy in text extraction by training object detection YoloV8 fused with OpenCV and Tesseract OCR.
- Enhanced text extraction efficiency by 25% through machine learning thus boosting overall system performance.

eMcREY

Software Engineering Intern

Mar 2023 – Jun 2023

Dbayeh, LB

- Developed XML, Java, and MySQL applications on Oracle platforms as part of a high-performing 4-member team.
- Streamlined three core business processes, achieving 20% reduction in processing time through automation and optimization.

PROJECTS

Android Network Cell Analyzer Application

Feb 2024 – May 2024

- Created an app with 3 developers to collect and analyze cellular network data (2G, 3G, 4G, 5G) using Android APIs.

Cipher Web – Encryption/Decryption Web Application

Aug 2023 – Nov 2023

- Engineered an end-to-end cryptographic algorithms web app using Flask and deployed to Azure.

EDUCATION

UNIVERSITY OF WARWICK - Master's degree in Applied Artificial Intelligence (Sept 2026)

Coventry, UK

AMERICAN UNIVERSITY OF BEIRUT (AUB) - Bachelor of Engineering in Computer & Communications

Beirut, LB

EXTRACURRICULAR:

- Alcademy: Developed Curriculum and Lectured a foundational AI course at AUB.
- IEEE: Guided activities and initiatives, fostering professional development.
- PythonDojo: Actively facilitated daily coding meetings, contributing to Python codebase.

May 2024 – Sep 2025

Feb 2022 – May 2023

Sep 2021 – Jun 2022

SKILLS

Technical: Prompt Engineering, Systems Prompting, LLM Evaluation, LLM APIs, AI Analysis, Python (Flask), Node.js, PHP, REST APIs, AWS, Azure, n8n, SQL/SQLite, ETL & Dashboards, Clustering & Segmentation, Computer Vision (YOLOv8, OpenCV, Tesseract)

Languages: English (High Proficiency), French (High Proficiency), Arabic (Native)