

Hilal Kanaan

+961-70-786-385 | hilalkanaan05@gmail.com

[LinkedIn](#) | [GitHub](#) | [Portfolio](#)

PROFESSIONAL SUMMARY

Computer Science engineer on the AI track (GPA 3.7/4.0) who builds and ships full systems, from database to deployed product. Shipped a production RAG pipeline on the Gemini API for context-aware automotive search and a tile-rendering system that streams multi-gigabyte architectural renders to real estate buyers across Gulf developments. Grounded in machine learning and deep learning fundamentals (neural networks, feature engineering, model evaluation) with hands-on Python, and fluent in AI-assisted and agentic development using Claude Code and the OpenAI and Gemini APIs.

TECHNICAL SKILLS

AI / Machine Learning: Machine Learning, Deep Learning, Neural Networks, Feature Engineering, Model Evaluation, Retrieval-Augmented Generation (RAG), Prompt Engineering, Python, Google Colab, PyTorch, scikit-learn, NumPy, Pandas, OpenAI API, Gemini API

AI-Assisted Development: Claude Code, Agentic Workflow Development, AI-assisted code generation and review, LLM behavior debugging

Languages: TypeScript, JavaScript, Python, C#, SQL, Java, C++

Frameworks: Next.js, React, Node.js, Express.js, ASP.NET Core

Databases & ORMs: PostgreSQL, Microsoft SQL Server, Supabase, Firebase, Prisma

Cloud & DevOps: Google Cloud Platform (GCP), Vercel, Docker, GitHub Actions, Git, CI/CD, REST APIs

EXPERIENCE

Backend Developer

Jan 2026 - May 2026

Lebanese Ministry of Youth and Sports

Beirut, Lebanon

- Implemented QR-code generation and validation services for a national youth-discount platform, handling encoding, expiry enforcement, and string-to-code conversion across all vendor flows.
- Designed redemption logic with single-use and validity enforcement, eliminating duplicate-redemption paths to protect transaction integrity.
- Delivered the Express.js REST APIs (Restaurant Details, Discount Details) consumed by the frontend team, defining the contracts that unblocked UI work ahead of a 30+ vendor launch (Malik's, Zaatar w Zeit).

Full-Stack Software Engineer

Dec 2025 - March 2026

Real Estate Platform (Contract)

Remote

- Engineered a tile-based rendering system that splits 5GB+ renders into zoom-dependent tiles, loading only the tiles visible at the current zoom level so the client streams megabytes instead of gigabytes with smooth mega-zoom.
- Created an admin authoring tool for plotting zone overlays, property markers, amenities, and 360° viewpoints across distinct City and Project views, letting developers publish interactive maps directly on their own sites.
- Built the SaaS platform (Next.js, TypeScript, Supabase, OpenSeadragon, Clerk auth) for developers at the scale of Jubail Island and Emaar, now in proposal with Gulf clients.

Full-Stack Development Intern

Aug 2025 - Oct 2025

IDS Fintech

Hazmieh, Lebanon

- Completed an intensive C# engineering track (SQL, RESTful APIs, async programming, web development), then applied the stack in a capstone build.
- Developed a full-stack e-library with role-based access (user, admin) and core lending operations (borrow, extend, filter by genre and author) on an ASP.NET Core and SQL backend with a React frontend.
- Extended the system with an author-follow feature and a book-recommendation engine, finishing 2nd of 30 interns with a final grade of A.

QA Engineering Intern

Jul 2025 - Sep 2025

Toothpick / Markit / Salva World

Hazmieh, Lebanon

- Ran end-to-end QA across three storefront and CMS products and their vendor integrations, exposing 25+ logical and technical defects before release.
- Co-developed an OCR-based QA automation tool that flagged receipts, document fields, storefront content, and visual-layout defects, cutting manual regression effort.

PROJECTS

Corsa - AI-Powered Automotive Platform | Next.js, TypeScript, RAG, Gemini | [Live Demo](#)

Sep 2025

- Built a production RAG pipeline on the Gemini API for context-aware answers to complex automotive queries, iterating on chunking, embeddings, and prompt design to reach production quality.
- Designed the retrieval layer to ground responses in a structured automotive knowledge base, returning source-backed answers to reduce hallucination on specification and compatibility queries.
- Architected role-based dashboards for 5 user types (Admin, User, Dealer, Mechanic, Parts Seller), each with isolated workflows and scoped data access.

Faculty of Science Representative Portal | Next.js, Firebase, Clerk | [Live Demo](#)

Jan 2026

- As the elected Faculty of Science Student Representative, shipped this platform with role-based moderation, anonymous and private posting, and a real-time admin dashboard.

EDUCATION

Beirut Arab University - B.S. Computer Science (AI Track), GPA 3.7/4.0

Graduated June 2026

- Relevant coursework: Deep Learning, Applied AI, Machine Learning, Feature Engineering