

Nisreen Hamzah

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Profile

Software Engineer and AI/Data enthusiast with a strong background in full-stack web, mobile, and enterprise software development. Experienced building production-grade systems across the stack from responsive frontends and RESTful APIs to backend architectures, RAG pipelines, and NLP-driven analytics dashboards. Proficient in JavaScript, Python, ReactJS, React Native, Node.js, Vue.js, Ruby on Rails, SQL/PL/SQL, LangChain, and OpenAI APIs, with hands-on exposure to real-time messaging platforms, CPG enterprise systems, and AI-powered automation.

Currently pursuing a Master's in Data Science, with additional expertise gained through an Advanced Full Stack Development with AI bootcamp covering DevOps, AI-powered tooling, and modern software architecture.

PROFESSIONAL EXPERIENCE

Software Engineer

December 2025 - Present

Limitless Technologies – Beirut, Lebanon

Ruby on Rails · PostgreSQL · Vue.js · Redis · JavaScript · Tailwind CSS

- Designed and developed enterprise-grade communication platforms using Ruby on Rails, PostgreSQL, and Redis, implementing scalable backend architectures, RESTful APIs, background jobs, and caching mechanisms to support high-volume messaging systems
- Integrated WhatsApp Business, Meta, and Telegram APIs, developing secure webhooks and session management flows while implementing AI-powered chatbot automation to handle conversations autonomously and reduce human intervention, ensuring seamless and reliable real-time message delivery
- Engineered dynamic frontend interfaces using Vue.js, JavaScript, and Tailwind CSS, delivering responsive, real-time user experiences tightly integrated with backend services
- Strengthened system security, authentication flows, and data protection standards, ensuring compliance with performance and security best practices
- Prepared comprehensive technical design documents, test cases, and deployment documentation, ensuring structured development cycles and high-quality deliverables

Full-Stack Mobile Developer

July 2025 - September 2025

Automation and Computer Technologies – Beirut, Lebanon

React Native (Expo) · Node.js/Express · MySQL · Sequelize ORM · Figma · EAS Build

- Designed and prototyped a Clinic Booking Mobile application with 10+ user-centric screens in Figma, ensuring intuitive and responsive UI/UX
- Developed and deployed the mobile frontend using React Native + Expo, leveraging EAS Build for cross-platform builds and app hosting
- Engineered the backend with Node.js (Express), implementing 15+ REST APIs, using Sequelize ORM for efficient database modeling and integration with MySQL
- Set up and configured the development environment, including environment variables and version control to streamline collaboration and scalability

Software Engineer

August 2024 – May 2025

Nordstar Solutions LLC – Beirut, Lebanon

Oracle APEX · PL/SQL · SQL · JavaScript · jQuery · CSS · Azure DevOps

- Engineered 20+ key system modules and sub-modules for Consumer Packaged Goods (CPG) solution, including Authentication & Security, Subscription Tier, Enterprise Planning, Presales Mobility, and X-Van Mobility, using Oracle APEX, PL/SQL, SQL, JavaScript, and jQuery

- Developed reusable UI/UX components using JavaScript, jQuery, and CSS, implementing design mockups for consistent and scalable user interfaces
- Built interactive dashboards and analytics with SQL-based KPIs, delivering actionable insights to support data-driven decision-making
- Refactored complex backend logic, improving system performance and execution efficiency by 30%, while enhancing scalability and maintainability
- Mentored 4 new team members and interns, conducting code reviews to ensure high-quality deliverables while adhering to best practices in coding standards

Junior Programmer Analyst

August 2023 - August 2024

Nordstar Solutions LLC – Beirut, Lebanon

Oracle APEX · PL/SQL · SQL · Oracle Forms & Reports · Microsoft SQL Server · Azure DevOps

- Migrated 5+ legacy solution modules (e.g. Order Management, Settlement Operations) into scalable, high-performance systems
- Optimized database procedures by designing and enhancing PL/SQL packages, scripts and batch files
- Created Minutes of Meeting (MOMs) and transformed them into structured DevOps user stories, enabling agile development tracking and streamlining project management
- Developed user flow diagrams to visually document and define process workflows, enhancing clarity and alignment for system functionality
- Provided client support for 3 clients using legacy CPG system running on Oracle Forms & Reports and Microsoft SQL Server, resolving 20+ issues and ensuring smooth system operations

Software Developer Intern

May 2023 - August 2023

Astrolabe ICT – Beirut, Lebanon

Figma · Agile/Scrum · Process Analysis · Technical Documentation

- Contributed to Agile development processes, participating in sprint planning, stand-ups, and retrospectives for over 100+ hours, ensuring timely delivery of project milestones
- Designed Persona workbenches, conducted process functional analysis, and created user flow diagrams using Figma, improving cross-functional alignment and design efficiency
- Documented application processes and technical workflows, ensuring clarity and transparency for stakeholders and team members

EDUCATION

Master's in Data Science (M2)

2024 - Present

Lebanese University, Faculty of Sciences - Hadath

- Coursework aligned with global technology standards, focusing on Machine Learning, AI, Data Processing, and Predictive Modeling, integrating research and practical applications through real-world projects

Bachelor of Science in Computer Engineering

2019 - 2022

Lebanese International University – Beirut

Full Scholarship | Graduated with Distinction | GPA: 3.57/4

- Gained expertise in Web Development, Software Application Design, Data Structures, Communication Networks, and Mobile Development

EXTRA CURRICULUM

Advanced Full Stack Development with AI Bootcamp

May 2025 – August 2025

OnRamp Academy, Forward Mena – Online Live Sessions

- Coursework covers topics ranging from soft skills to technical skills, including Communications for tech seniors, AI, Frontend (ReactJS), Backend (NodeJS), Database, Docker, Cyber Security, Git and GitHub, Testing and QA, Introduction to DevOps, and Agile methodology

Frontend Web Development Bootcamp

September 2022 – January 2023

Re:Coded Academy – Remote (Global non-profit organization registered in New York)

- Completed a 5-month immersive bootcamp with 300+ hours of project-based learning, mastering frontend libraries and frameworks (ReactJS, TailwindCSS, i18next, Firebase) and utilizing Git and GitHub for version control and collaboration

PROJECTS

FacultyTech AI Assistant

January 2026 – February 2026

Academic Project, Lebanese University – AI/Full Stack Developer

- Built an interactive AI assistant for the Faculty of Technology with a Streamlit front-end (Python, Streamlit), and custom CSS for a compact, mobile-friendly UX
- Implemented a retrieval-augmented generation (RAG) pipeline using LangChain, OpenAI (ChatOpenAI + embeddings), and a local Chroma vector store (SQLite-backed) to provide context-aware answers from institutional documents and FAQs

SocialPulse Cross-Platform Social Media Analytics

December 2025 – January 2026

Academic Project, Lebanese University – Data Engineer/Full Stack Developer

- Built a modular Streamlit analytics dashboard ingesting and normalizing social media data (Facebook, Instagram, YouTube) via Apify actors, with MongoDB persistence and interactive visual reports
- Implemented an Arabic-capable NLP pipeline covering tokenization, keyword extraction, topic modeling, sentiment analysis (emoji-aware), TF-IDF, and wordcloud generation for robust multi-language analysis

SKILLS

Technical Skills

- **Languages:** JavaScript, Python, Java, PL/SQL, SQL, Ruby, PHP, Linux
- **Frameworks & Libraries:** ReactJS, React Native (Expo), Vue.js, Ruby on Rails, Node.js/Express, Streamlit, TailwindCSS, Bootstrap, jQuery, Sequelize ORM, LangChain
- **Databases:** PostgreSQL, MySQL, Oracle DB, Microsoft SQL Server (MSSQL), Firebase, Chroma (vector store)
- **Tools & DevOps:** Git, Azure DevOps, Docker, EAS Build, Oracle APEX, npm, yarn, Figma
- **AI & ML:** OpenAI API, LangChain, RAG pipelines, NLP (tokenization, sentiment analysis, topic modeling), Chroma vector store, AI chatbot automation

Soft Skills

- Problem-Solving, Analytical Thinking, Strong Communication
- Teamwork, Agile & Scrum Methodologies
- Attention to Detail, Adaptability

Languages

- Arabic: Native (written and verbal)
- English: Fluent (written and verbal)

CERTIFICATES & WORKSHOPS

Build with AI Workshop

Google Developer Group (GDG) Beirut – April 2025

Attended a full-day workshop on AI and OpenAI technologies, gaining insights from industry experts

Oracle APEX Cloud Developer Certified Professional

Oracle – September 2023