

Jason Kozhaya Slim

42 Beirut Software Development Student | Civil Engineering Graduate
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Education

42 Beirut – Level 6 <i>Core Curriculum - Architecture of Digital Technologies Program Beirut, Lebanon</i>	2025 - Present
Notre Dame University - Louaize (NDU) <i>Bachelor of Engineering in Civil Engineering Zouk Mosbeh, Lebanon</i>	2018 - 2024
ESA Business School <i>Boost2Idea Entrepreneurial Launchpad Program Beirut, Lebanon</i>	2026

Experience

CMA CGM <i>AI Engineer Intern</i>	Sep 2026 - Present
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Selected Projects

Mini Bash Shell | C, Unix, Bash, Makefile

- Implemented a Unix-like shell in C with command parsing, environment handling, pipes, redirections, built-ins, and process execution.
- Applied low-level memory management, file descriptors, signals, and structured error handling to reproduce core shell behavior.

Mini RayTracer | C, Ray Tracing, Mathematics, miniLibX

- Built a ray tracer in C to render 3D scenes using cameras, lighting, shadows, geometric primitives, and scene parsing.
- Strengthened vector math, memory management, rendering logic, and graphics pipeline fundamentals through a full C implementation.

AI Operating System on Arch Linux | Arch Linux, Qwen2.5-Coder 3B, llama.cpp, Python, Shell

- Built a Linux-based AI operating environment on top of Arch Linux using a quantized local Qwen2.5-Coder 3B model for offline coding assistance and workflow automation.
- Built the inference layer of the local LLM using the llama.cpp library and configured the environment for terminal-based AI-assisted development.

AI SEO Agent | Python, Web Scraping, LLM Agents, SEO, Backend Development

- Built a website with a chatbot-style UI where users submit a website URL, then the system scrapes, stores, and analyzes the website content.
- Designed a multi-agent optimization flow for on-page SEO, meta titles and descriptions, blog scheduling, internal hyperlinks, and site schema recommendations.

Prompt Optimizer Chrome Extension | JavaScript, Chrome Extensions, Gemini API

- Built a Chrome extension that takes users' LLM prompts and optimizes them using the Gemini API to improve clarity, structure, and model response quality.

Financial Document Extractor | Python, LLM API, NLP

- Built a document extraction program that identifies and extracts financial information from documents using an LLM API, NLP techniques, and Python scripting.
- Designed the extraction flow to adapt based on document complexity, allowing simpler documents to be parsed directly and more complex documents to use LLM-assisted extraction.

Image Bot Scraper | Python, Web Scraping, Metadata Analysis, Cybersecurity Piscine

- Built the Spider/Scorpion project: a recursive image scraper for downloading website images and an image metadata tool for reading and handling EXIF data.

OTP Generator | Python, TOTP, HOTP, Cybersecurity Piscine

- Implemented a time-based one-time password generator based on RFC 6238, generating short-lived OTP codes from a stored master key for authentication workflows.

Tor Hidden Service | Tor, Nginx, Docker, SSH, Cybersecurity Piscine

- Configured a Tor hidden service that serves a static website through Nginx and supports SSH access on port 4242, using Docker and service configuration files.

Binary Reversing | Binary Reverse Engineering, C, Debugging, Cybersecurity Piscine

- Analyzed a compiled binary to understand its logic and control flow, then reconstructed the program behavior as part of a reverse engineering challenge.

Ransomware Virus | Python, Cryptography, Malware Analysis, Cybersecurity Piscine

- Developed an educational WannaCry-inspired file-encryption simulation in a controlled lab environment, with reversible encryption and safe execution constraints.

Technical Skills

Languages: C, C++, Python, JavaScript

Developer Tools: Git, GitHub, VS Code, Cursor, Codex, Claude Code, OpenClaw, Antigravity, Make, Docker

Technologies/Frameworks: Linux, Unix, Bash, Shell Scripting, Chrome Extensions, LLM APIs, llama.cpp, NLP

Relevant Coursework and Workshops

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| • 42 Beirut Extracurricular Cybersecurity Piscine | October 2025 |
| • Google AI Machine Learning Course | October 2024 |

Extracurricular Activities

NDU College Labs	Nov 2023 - Apr 2024
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Research Team Lead | Notre Dame University - Louaize

- Managed a team of 6 students researching alternatives for cement and steel replacement in construction.
- Conducted R&D; on alternatives for cement and steel replacement in construction.
- Performed mechanical and chemical tests on over 80 samples, including Portland cement concrete, fly ash geopolymer concrete, and concrete using olive pomace ash, paper sludge ash, and wood ash.

Additional Engineering Project Background

- Planned and designed civil engineering projects including residential buildings, water networks, structural analysis, highway design, slope stability, and innovative concrete performance.
- Used engineering tools including Primavera P6, Epanet, ETABS, AutoCAD, and Plaxis during university project work.