

# OMAR HAMMOUD

omar.ammoudx@gmail.com

+41 78 206 30 53

Zurich, Switzerland

<https://omar-hammoud.vercel.app/>

## EDUCATION

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**Swiss Federal Institute of Technology (ETH)** *Zurich, Switzerland*  
*Master of Science in Computer Science, Data Management* Sep. 2024 - Aug. 2026 (expected)

**Swiss Federal Institute of Technology Lausanne (EPFL)** *Lausanne, Switzerland*  
*Bachelor of Science in Computer Science* Sep. 2021 - Aug. 2024

• **Relevant Courses:** Algorithms, Functional Programming, Parallelism and Concurrency, Computer Architecture, Multiprocessor Architecture, Data Intensive Systems, Software Engineering, Computer Language Processing, Computer Networks, Computer Security and Privacy, Object Oriented Programming, System Oriented Programming, Probability and Statistics, Algebra, Graph Theory, Machine Learning, Theory of Computation

## PROJECTS

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- **Android Mobile App:** *[Kotlin]* Collaborated with 6 classmates to produce 'FeedMe', a mobile app that helps you find recipes to cook by inputting ingredients (manually, scanned or by image) all while following your friends and sharing your recipes with them. Used Google Firebase as our data management backend.
- **Bicycle Pathfinder:** *[Java]* Advanced pathfinder for bicycles all over Switzerland's area using OpenStreetMap for data and JavaFX for graphical interface. Gives the most efficient route between two or more pinpoints using Dijkstra's algorithm, considering multiple indicators such as distance, elevation and bird's eye view.
- **Unix v6 Filesystem:** *[C]* A simplified version of the Unix v6 filesystem of the 1970s, constructed the skeleton of the system through a hierarchy of layers: sector, mount, inode, and directory.
- **Snake:** *[Assembly, VHDL]* Snake minigame coded on a Gecko4Education Board. The FPGA is programmed to manage game logic, input handling, and screen output (LEDs).
- **Crossy Cat:** *[C]* A simplified remake of the 'Crossy Road' mobile game programmed on a Nintendo DS using the libnds library.
- **Advance Wars remake:** *[Java]* A simplified remake of the 'Advance Wars' Gameboy game.

## SKILLS

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- **Programming Languages:** Java, C, Python, Scala, Assembly, VHDL, Verilog, SQL, Kotlin, HTML, CSS, JavaScript
- **Others:** Git, Dynamic Programming, Parallel Programming, Concurrent Programming, Object-Oriented Programming, Functional Programming, Pipelining, GPU Programming, Graph Theory, Android Development, Docker, CI/CD, React
- **Hobbies:** Golf, Ski, Tennis, Gym, Biking, Swimming
- **Languages:** Fluent in French, English and Arabic (native)

## EXPERIENCE

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• **Software Developer - Htech** *[Beirut, Lebanon]* *Jul. 2024 - Present*  
Starting as an intern and transitioning to remote part-time, I worked as a Web Developer, gaining experience in both frontend and backend development.

• **Student Assistant - EPFL** *[Lausanne, Switzerland]* *Sep. 2023 - Jun. 2024*  
Provided support to students in the Computer Architecture and Fundamentals of Digital Systems courses. Responsibilities included helping clarify concepts, assisting with lab work, and guiding students through problem-solving exercises.