

Douaa Khalil

Software engineer with a background in engineering and interdisciplinary research.

✉ douaa_khalil@hotmail.com ☎ +961 81 778 753 📍 Beirut, Lebanon

🎓 EDUCATION

Master's in Natural and Artificial Cognition (M2)

Grenoble INP – Phelma, France

2023 – 2024

Focus: cognitive psychology, language science, introductory statistics, computational modeling, human perception.

Engineering Double Degree

Centrale Nantes (France) &

Lebanese University

2013 – 2019

Focus: computer vision, applied mathematics, software development, electronics.

</> SKILLS

Programming Languages

C++, Python, R, C#, Java, SQL

Software & Tools

Cursor, Git, MATLAB, LaTeX, Microsoft Office, Unity3D, Blender, Android Studio

🌐 LANGUAGES

Arabic (native),
French (fluent),
English (fluent),
Spanish (basic, in progress)

🏆 CERTIFICATIONS

CCNA 1, CCNA 2, Machine Learning (foundations, Stanford University)

📁 EXPERIENCE

Part-time R&D in AI-assisted Nutrition Support | LAU, Beirut Feb 2026 – present

- Developing an AI-assisted full-stack patient support platform focused on bariatric surgery nutrition and recovery monitoring, using Next.js, Supabase, and AI-assisted development tools (Cursor).
- Integrating nutrition APIs and LLM services to support AI-assisted features.
- Contributing to upcoming nutrition-focused technology and data analysis projects.

Research and Skill Development | Beirut 2025

- Completed a two-month Research Assistant contract at American University of Beirut, on panic attack prediction and AI-assisted mental health interventions.
- Strengthened analytical skills through advanced self-study in statistics (*Statistical Thinking for the 21st Century*).
- Independent data analysis project (ongoing): *Factors associated with cognitive functioning in older adults (NHANES 2013–2014)*. Performing data merging and cleaning, missingness assessment, exploratory analysis, and modeling using R and Python. ([Report](#) | [Full Project](#))

Research Intern in Cognitive Psychology | LPNC, Grenoble Feb 2024 – Jul 2024

- Designed and carried out behavioral experiments investigating working memory. ([Project](#))
- Improved a computational model of working memory (variant of TBRS, C++ implementation) to simulate experimental findings.
- Contributed to statistical analysis in R and Python; drafted materials for future publication. ([Thesis](#))

R&D in Computer Vision | AUB, Beirut Feb 2022 – Aug 2023

- Researched and developed algorithms related to photometric calibration, SLAM systems, and 3D reconstruction for digital twins.
- Designed and ran technical experiments to benchmark systems using quantitative performance metrics (accuracy, runtime, robustness).
- Published and reviewed relevant papers. ([Publications](#))

R&D in AR & Computer Vision | Artefacto AR, Rennes Apr 2019 – Sep 2019

- Researched Diminished Reality and developed a real-time mobile implementation.

Mobile App Development | InVirtus Technologies, Nantes Feb 2018 – Jun 2018

- Delivered user-friendly and visually appealing applications.