

Daniel Dia

✉ dmd13@mail.aub.edu | 🌐 danieldia.me | [LinkedIn](#) | [GitHub](#)

EDUCATION

Dual Degree: B.E. in Computer & Communications Engineering, B.S. in Mathematics | AUB Aug 2025 — May 2030

GPA: 4.00/4.00

Relevant Coursework: Linear Algebra, Number Theory, Discrete Math, Calculus, Electric Circuits, Analog Signal Processing.

EXPERIENCE

Technical Officer — Software Development Team | *Google Developer Groups on Campus @AUB* Oct 2025 — Present

- Led and organized several events and seminars for the GDG on Campus community, including PROOF101 (a formal verification course), a Git CLI & version control workshop, on-campus stands promoting the GDG Referrals Platform, and a Linux workshop delivered by guest speaker Dr. Nadim Kobeissi.

Events Subcabinet Member | *AUB Math Society* Oct 2025 — Present

- Member of the Events Subcabinet of the AUB Math Society, contributing to planning and running their current and upcoming events, including PROOF101 (a formal verification course), "Bridging Fields" invited talks, and the Math Society Trivia Night.

Logistics Team Volunteer | *Math Tutoring Center (MTC), Department of Mathematics @AUB* Jan 2026 — Present

- Part of the logistics team supporting the Math Tutoring Center, a Department of Mathematics initiative at AUB providing free peer-to-peer tutoring across all major mathematics courses at the university.

Mathlib4 Contributor | *Open-Source Formal Mathematics* | [Pull Request](#) Apr 2026 — Present

- Contributed to [Mathlib4](#), the canonical formal mathematics library for Lean 4, under the supervision of Rida Hamadani (LMAP, France); had a PR merged formalizing two lemmas characterizing when a block-diagonal matrix is Hermitian.
- Actively working on further contributions as part of a broader effort to extend Mathlib4's linear algebra API to enable progress in the formalization of spectral graph theory.

PROJECTS

PROOF101: Formal Verification Course | *GDGoC @AUB & Math Society* | [Website](#) Jan 2026 — Apr 2026

- Designed and delivered one of the first student-led undergraduate formal verification courses in the MENA region to 200+ registrants from 15+ countries, teaching a 10-week curriculum on mathematical program correctness and proof assistants using Lean4; adapted from Brown University's CS 1715 (*Formal Proof and Verification*, Fall 2025).
- Developed comprehensive course materials including 500+ lecture slides, across a total of 5 lecture modules, interactive quizzes, 5 challenging Lean4 programming assignments, curated readings from over three textbooks, and professional course website with structured and rigorous learning resources.
- Coordinated distinguished guest lectures from Rida Hamadani (LMAP, France), Dr. Assaf Kfoury (Boston University, US), and Dr. Robert Lewis (Brown University, US) on type theory, metaprogramming & decision procedures, and mathematical formalization; supervised student mini-projects with optional contributions to the open source Mathlib/CSlib libraries.

EXTRACURRICULARS & AWARDS

Volunteer Contributor & Editor | *Wikipedia (Wikimedia Foundation)* | [Profile](#) Dec 2023 — Present

- Drove over 1.2 million reader views through 150+ article enhancements, earning 70+ "thanks" from the editorial community.
- Specialized in comprehensive overhauls of technical and academic content, often architecting substantial expansions of 25,000+ characters per article; reformatted complex mathematical & technical concepts for clarity and accessibility.
- Elevated core articles across computer science, engineering, physics, biology, linguistics, mathematics, and history by correcting systemic issues and ensuring adherence to the highest editorial standards.
- Contributed to multilingual encyclopedia content in English, Russian, French, and Spanish.

LIFE Scholar | *LIFE Lebanon* July 2025 — Present

- Selected for demonstrated academic excellence and leadership potential; actively engaged in mentorship programs, professional networking sessions, and community engagement initiatives supporting Lebanese talent development.

SKILLS & TOOLS

Programming: Rust, Python, Lean4, C/C++, Bash, LaTeX, MATLAB, HTML/CSS.

Formal Verification: Lean4 (+ Mathlib4), TLA+.

Tools: Git/GitHub, Linux, Microcontrollers (ESP32, Arduino), Soldering.

Languages: English, French, Russian, Arabic (Native or Biligual); Spanish (Limited).

Mathematics: Linear Algebra, Calculus, Number Theory, Type Theory, the λ -calculus.

Interests: Formal Verification, Algorithmic Number Theory, Post-Quantum Cryptography, Communication Systems.