

Ziad Abillama

Computer Engineering and Economics dual-degree student at the American University of Beirut with hands-on experience in software engineering, distributed systems, and applied cryptography. Built and deployed microservices-based applications and full-stack platforms using Python, C++, JavaScript, Node.js, React, and Docker. Currently engaged in research on quantum-classical machine learning for resilient GPS navigation. Strong problem-solving skills with a solid foundation in systems, networking, and data-driven analysis.

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📍 Beit Mery, Lebanon

🌐 [ziad-abillama](#)

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WORK EXPERIENCE

GDG on Campus - AUB

Logistics Team Member

Nov 2025 - Present

- Supported planning, logistic coordination, and on-site execution of large scale student tech events, ensuring smooth operations and adherence to schedules.
- Coordinated with different teams to manage resources and event workflows under time constraints.

American University of Beirut

Undergraduate Research Assistant

Oct 2025 - Present

- Conducting interdisciplinary research on quantum-classical machine learning for resilient GPS navigation.
- Investigating GPS spoofing and interference scenarios and exploring machine learning-based mitigation techniques.

EDUCATION

Brummana High School

Lebanese Baccalaureate

Oct 2008 - Jun 2023

American University of Beirut

First Major: Bachelor of Engineering - BE, Computer Engineering

Sep 2023 - Aug 2027

Second Major: Bachelor of Science - BS, Economics

PROJECTS

CryptoLab - Gamified Classical Cryptography Platform [🔗](#)

Aug 2025 - Dec 2025

- Built a full-stack cryptography learning platform using React, Node.js, Express, and MongoDB, implementing six classical cipher algorithms involving modular arithmetic, frequency analysis, and linear algebra.
- Designed secure JWT/OAuth authentication and a gamification system (missions, levels, achievements), with real-time progress tracking and protected API routes.

CoinKeeper - Microservices-Based Expense & Budgeting System [🔗](#)

Aug 2025 - Dec 2025

- Engineered a microservices fintech application with a React SPA and four Node.js/Express services (Auth, Expenses, Budgets, Analytics) behind Nginx, using MongoDB/Mongoose for distributed data persistence.
- Implemented JWT authentication, containerized services with Docker, and automated deployment via Jenkins CI/CD and Kubernetes (Ingress, services, namespaces) for scalable, production-style orchestration.

AUB Registrar System [🔗](#)

Mar 2025 - Apr 2025

- Developed a multi-user course registration system using Python, sockets, SQLite, and JSON messaging, implementing role-based access control and a structured client-server communication model.
- Built a Tkinter-based GUI and enforced threading, database locking, and synchronization to maintain data consistency and real-time responsiveness under concurrent access.

SKILLS

- **Programming:** Python, C++, Javascript, RISC-V Assembly
- **Web & Backend Development:** React, Node.js, Express, Django, CSS, HTML
- **Databases & APIs:** MongoDB, SQLite, PostgreSQL, REST, JWT, OAuth, Socket Programming
- **Systems & DevOps:** Git, Docker, Kubernetes, Jenkins, Nginx
- **Tools:** Figma, Jira, PSpice, MATLAB, Cisco Packet Tracer, Microsoft Office Package, LaTeX
- **Languages:** English (fluent), Arabic (native), French (fluent)