

# JAD DIKA

📍 Hazmieh, Beirut, Lebanon 🇱🇧 Lebanese  
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## EDUCATION

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### American University of Beirut (AUB)

Bachelor of Engineering, Mechanical Engineering  
Minors in Business Administration  
GPA: 3.63

*Beirut, Lebanon  
January 2018 - May 2022*

### Lycee Franco-Libanais Verdun

French Baccalaureate: Official in 2017

*Beirut, Lebanon  
September 2002 - June 2017*

## EXPERIENCE

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### Lighthouse Bakery and Pastry (Family Business)

Retail Store Supervisor

*Beirut, Lebanon  
2016 - Present*

- Spent my summer and winter breaks working full-time as supervisor at one of the Lighthouse Bakery and Pastry branches.
- Monitored the quality of production and services.
- Supervised staff.
- Resolved customer complaints.

## PROJECTS AND RESEARCH WORK

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- **Literature Review on Smart Grids:** Wrote a literature review about smart grids, studying their current state and future prospects.
- **Final Year Project:** Currently working on the cost-effective implementation of a dual-axis, open-loop solar tracking system based on solar angles input calculated using astronomical equations.
- **Research Paper on the Economics of Solar Energy in Lebanon:** Wrote a paper investigating the current state of solar energy in Lebanon from an economic perspective to then provide a critical assessment of the situation in addition to future recommendations based on literature.
- **Mechanical Water Dispenser for People with Disabilities:** Designed and simulated a fully-mechanical system intended to conveniently dispense water cups while being actuated solely by foot.
- **Feasibility Study for a Solar PV Project in Lebanon:** Wrote a report assessing the feasibility of constructing a 100 kW solar PV plant in the West Bekaa, Lebanon.
- **Feasibility Study for Agricultural Project in Lebanon:** Wrote a paper evaluating the possibility of undergoing an agricultural project in the Bekaa region, Lebanon.
- **Simple Car Radiator Design Optimization:** Designed a simple cross-flow heat exchanger for a car radiator and optimized the design for minimum cost implementation.
- **Design and Simulation of a Closed-Loop Drug Infusion System:** Designed both a PID controller and a LagLead compensator for an anesthetic drug administration system and then evaluated the designs via simulations in the Simulink environment.

## AWARDS AND CERTIFICATES

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- Dean's Honor List for Outstanding Academic Achievement at American university of Beirut.

## RELEVANT COURSES

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- Control Systems
- Design of Thermal Systems

- Energy Economics and Policy
- The Science and Technology of Energy
- Manufacturing Processes
- Dynamics System Analysis
- Mechanical Design
- Smart Materials

## SKILLS

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<b>Modeling and Simulation Software:</b>	Simulink, LabView, AutoCAD, PTC Creo, and Autodesk Inventor.
<b>Programming Languages:</b>	C++, Python, and MATLAB.
<b>Organizational Tools:</b>	MS Word, MS PowerPoint, MS Excel, LaTeX.
<b>Languages:</b>	Fluent in English, French and Arabic.
<b>Soft Skills:</b>	Self-Learning, Teamwork, Perseverance and Adaptability

## OTHER INTERESTS

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- **Research Interests:** Renewable Energy Systems, Manufacturing and materials.
- **Academic Interests:** Optimization, Mechanical Design, Manufacturing.