

# Abdel Hadi Nhayli

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## Education

**American University of Beirut (AUB),**

*Pursuing a bachelor's degree in **Computer Science**.*

*Spring 2022 – Fall 2025*

- *USAID USP HES scholarship since 2022*
- *Cumulative GPA: 3.65 / Major GPA: 3.96*

## Relevant Coursework

- Web Programming and Design
- Machine Learning
- Software Engineering
- Database Systems
- Software Construction
- Algorithms and Data Structures
- Design and Analysis of Algorithms
- Theory of Computation

## Projects

### Full-Stack Developer – TobCare Digital Healthcare Platform

*Feb 2025 – Apr 2025*

- Developed TobCare, a full-stack web platform connecting patients and doctors for appointments, consultations, and medical record management.
- Deployed live on AWS, ensuring scalable and reliable access to healthcare services across Lebanon: <https://tobcare.com>
- Integrated AI features to:
  - Verify the authenticity of registered doctors via medical license and identity checks.
  - Implement a patient-facing chatbot to recommend the appropriate doctor specialty based on symptom input.
- Led one development sprint as Scrum Master, applying Agile Scrum methodology to streamline collaboration and delivery.
- Built the platform using React.js, CSS, Node.js, and a PostgreSQL database.
- Built an admin panel for super-user access to manage accounts, content, and ensure platform moderation.
- Managed frontend, backend, and database layers with continuous integration via GitHub, supporting clean version control and team coordination.
- Implemented Selenium E2E testing to ensure platform reliability across key user journeys such as doctor signup, login, appointment booking, and dashboard interactions.

### Machine Learning Project – Brain Tumor Detection and Localization

*Mar 2025 – Apr 2025*

- Developed and compared multiple deep learning models (ResNet, YOLOv5, Faster R-CNN) for tumor classification and localization on MRI scans.
- Conducted end-to-end data preprocessing: cleaned inconsistent/missing bounding box labels, applied targeted data augmentation (brightness and compression only), and generated a CSV mapping image-label pairs for efficient loading.
- Implemented stratified 5-fold cross-validation to ensure robust model generalization and prevent overfitting.
- Experimented with multiple architectures and hyperparameters, identifying overfitting and underfitting patterns in training behavior.
- Used dropout regularization to improve generalization in ResNet and reduce model bias toward the “no tumor” class.
- Selected a final ResNet model achieving 94.38% recall, prioritizing medical sensitivity (minimizing false negatives).
- Deployed final model on GitHub with organized branches for experimental and production-ready architectures.

### Online Mall Database

*Mar 2025 – Apr 2025*

- Designed a comprehensive database for an online mall, supporting users, shops, staff, and admins.
- Modeled 14+ entities and complex relationships (one-to-many, many-to-many, ternary, self-referencing) using Oracle SQL Developer Data Modeler.
- Built an Enhanced Entity-Relationship (EER) diagram ensuring normalization and scalability.
- Implemented the physical database in MySQL Workbench with 22 tables, primary/foreign keys, constraints, and optimized indexes.
- Created views (view\_item\_details, view\_user\_cart, etc.) to streamline complex queries and reporting.
- Inserted realistic dummy data and validated full workflows (orders, carts, payments, shipments).
- Delivered complete database dump and scripts for deployment-ready integration.

### Full-Stack Social Media Platform for AUB Students

*Nov 2024 – Dec 2024*

- Built a full-stack web app using React.js, Node.js, MongoDB, and CSS for AUB students.
- Implemented secure authentication, privacy controls, and social features (posts, likes, comments, shares).
- Developed real-time chat with offline message queuing and a full-featured admin panel for moderation.
- Optimized backend queries and frontend responsiveness for a scalable, user-friendly experience.

## Leadership/ Extracurricular

### Community-Based Internship, FRPD

*Jun 2024 – Aug 2024*

- Distributed supplies and supported elderly and disabled individuals in **Tripoli and Akkar**.
- Led **data entry** and file management for HR, Social, and Health departments.
- Mentored volunteers and assisted **trainers and students** in the Vocational Training Program.

### LEO International Club, Treasurer

*Jan 2024 – May 2025*

- Managing the club's financial affairs.
- Participating in planning fundraising events.

## Interests and Skills

**Languages:** Arabic (native), English (fluent), French (proficient), German (beginner)

**Technical Skills:** JavaScript, React.js, Node.js, CSS, Java, C, C++, Python, SQL, MySQL, MongoDB

**Soft Skills:** Communication, Public Speaking, Leadership, Problem Solving, Teamwork, Attention to Detail, Work Under Pressure

**Interests:** Gymnastics, hiking, camping, cycling, swimming, Formula one.