

Roa Al Assaad

Tripoli /Koura , Lebanon | Tel : +961 70173684 | roadandashi@gmail.com |
<https://www.linkedin.com/in/roaassaad/> | <https://github.com/RoaAssaad>

EDUCATION

BSc Computer Science, University of Balamand (UOB)

2022 – 2025 Fall (Expected)

Relevant Coursework: Data Structures and Algorithms, Web Programming, Introduction to Artificial Intelligence and Machine Learning, Databases, Computer Graphics, JavaFX and Java Spring Boot (Java Technology), Advances in Computer Science (React), Advanced Data Structure, Software Analysis and Design, Artificial intelligence Applications, Object-Oriented Programming, Operating Systems, Information Systems Management, Financial Accounting, Computer Networking and Communication.

SKILLS & PROJECTS

- **Programming:** C++, C, Java, JavaScript, TypeScript, React (Vite, Axios), Python, SQL, MySQL, NestJS, TypeORM, JavaFX, Java Spring Boot, Git, Unix Bash shell, R, HTML, CSS, Node.js, Express, EJS, HTML5 Canvas
- **Web Programming Final Project:** Developed a pet adoption website with an aim to rescue stray cats in Lebanon, using JavaScript, HTML, CSS, Node.js, Express, EJS, as well as integrating a MySQL database.
- **Computer Graphics Final Project:** Developed Super Princess Peach 3, a 2D platformer game using HTML5 Canvas, JavaScript, and a custom game engine. Implemented sprite handling, animations, and a dynamic camera to create an engaging gameplay experience.
- **Software Analysis and Design Term Project:** Prepared a comprehensive report analyzing and designing a system for a local transportation company. Addressed existing system challenges and proposed effective solutions.
- **Ai & Machine Learning Project:** Developed a breast cancer prediction model using Random Forest, Logistic Regression, Gradient Boosting, and SVM. Applied hyperparameter tuning, PCA for dimensionality reduction, and regularization, with detailed visualizations and performance analysis.
- **Data Structures Project:** Developed a menu management system in C++ using doubly linked lists to categorize items into Appetizers, Main Dishes, Desserts, and Beverages. Implemented file handling for menu data storage and a special offer feature using vectors to dynamically update discounted items based on stock availability.
- **Advanced Data Structures Project:** Implemented a Chart of Accounts in C++ using a Forest Tree data structure to efficiently manage accounts and subaccounts. Designed features for dynamic account organization, transaction management, and real-time balance updates.
- **Advances in Computer Science Project :** Started in Spring 2025 (in progress), developing a web application using NestJS (TypeORM) for the backend and React (Vite, Axios, TypeScript) for the frontend.
- **Java Technologies Project:** Started in Spring 2025 (in progress), developing applications using JavaFX for desktop UI development and Java Spring Boot for backend services
- **Artificial Intelligence Applications Project:** Started in Spring 2025 (in progress), developing deep learning models using TensorFlow and Keras to solve real-world problems in computer vision, NLP, and reinforcement learning.

PROFESSIONAL EXPERIENCE

Sept 2024-Present
UOB developers club

Secretary: Organized CS-related events, managed logistics, tracked expenses, prepared proposals, assisted in hosting, and handled communications.

LANGUAGES

Competencies: Fluent in English (speaking, reading, and writing), Native in Arabic, and Basic proficiency in French (A2 Level).