

Omar Bazarbachi

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Beirut, Lebanon

OBJECTIVE

Seeking a diploma in a Hardware program where my strong analytical and problem-solving skills will be utilized.

EDUCATION

- **International College** Beirut, Lebanon
French baccalaureate *Sep. 2004 – June 2019*
- **American University of Beirut** Beirut, Lebanon
Bachelor of Engineering in Computer Science & Eng. *Sep. 2019 – May 2023 (Expected)*
 - **Focus Area:** Hardware Engineering

PROJECTS

- **Battleships \ Guitar Hero:** Developed an app using C++ and Qt creator that allows a user to play modified versions of Battleships and Guitar Hero. The app also includes user authentication and BitBucket was used for version control.
- **LEGO® Robot:** Designed a robot from LEGO® and programmed all the sensors using LabVIEW to allow the robot to perform various movement functionalities. The robot was used to participate in a sumo competition.
- **Food Recommender System:** Developed a food recommender system using Python. This model used pairwise correlation to measure similarity. This allowed our model to not only give recommendations but also to inform the user of the reason they received said recommendations.
- **Attendance Website:** Developed a Website using Apache Tomcat that allows a professor to connect to an SQL database and manage the history of his students' attendance. This website provided the user with a graphical user interface, and options to modify the data.
- **Simplified Python Language:** Developed a subset of the python language using ANTLR. This language allowed the use of integers, strings, and tuples. It supported assignment, addition, concatenation of tuples, and printing.
- **Accelerometer Drivers:** Developed for an accelerometer that interfaces with an FPGA board. The drivers were used to create a scale out of the accelerometer. This project involved two steps. The first step was creating and packaging a custom IP block in Vivado using VHDL to run on the board. The second step was to write the driver using the C language from the vivado SDK option.

WORKSHOPS

- **Unity 2D Game Development:** Attended a workshop on unity where we developed a 2D platformer game with physics. We implemented a clone of the popular game flappy bird as part of the tutorial.

PROGRAMMING SKILLS

- **Languages:** Java, C/C++, C#, Python, VHDL, RISC-V, and SQL.
- **Frameworks and Tools:** Django, CUDA, RISC-V, Unity, Git, and Qt.

CORE COURSES

- **Completed:** Electric Circuits (*A+*), Data Structures and Algorithms (in C++) (*A-*), Design and Analysis of Algorithms (*A+*), Object-Oriented and Effective Java Programing (*A-*), Digital Design (*A-*), Computer Networks and Services (*A-*), Theory of Computation (*A*), Programming Language Design and Implementation (*A*), Computer Organization (*A+*), Computer Organization Lab (*A-*), Machine Learning (*B*), Operating Systems (*A+*), Reconfigurable Computing (*A*), Software Tools Lab (*A+*), Internetworking Lab (*A-*).
- **To be Completed before Internship Date:** Parallel Computer Architecture and Programming, Software Engineering, Web Mobile and Application Development Lab, GPU Computing

LANGUAGE SKILLS

- **English:** Full professional proficiency.
- **French:** Full professional proficiency.
- **Arabic:** Native language.

SOFT SKILLS

- **Skills:** Teamwork, organization, adaptability, hardworkingness, and open-mindedness.

HOBBIES

- **Interests:** Swimming, Guitar, Robotics.

CLUBS

- **School:** Robotics.
- **University:** Game Development, Robotics, IEEE.