

CYRIL BOU-HARB

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EDUCATION

University of Massachusetts Amherst | Amherst, MA

Exp. Graduation May 2025

Primary Major: B.S. in Computer Science (Member of Commonwealth Honors College)

GPA: 3.917

Secondary Major: B.S. in Mathematics Statistics & Data Science

Manning College of Information and Computer Sciences

Awards: *Chancellor's Award*

Dean's List (Spring 21, Fall 22, Spring 22, Fall 22)

Undergraduate Coursework: Introduction to the C Programming Language, Data Structures, Computer System Principles, CALC II, CALC III, Reasoning under Uncertainty, Intro to computation (Discrete Math), Programming Methodology, Linear Algebra, Physical Computing, Artificial Intelligence.

French Baccalaureate Scientific with Math specialty, with honors. Lebanese Baccalaureate Scientific

2005-2020

Carmel Saint Joseph

GPA: 17.47/20

PROFESSIONAL EXPERIENCE

Learning Resource Center (University of Massachusetts Amherst)

Aug 2022 – Present

Supplemental Instructor (SI)- CALCULUS II

Amherst, MA

- Teaching 400+ students CALC II
- Hold 3 exam review sessions of two hours (recorded to be watched again for students unable to attend)
- Creating worksheets twice per week
- Holding 2 sessions of one hour fifteen minutes each week
- Attending several training sessions held by the LRC
- Designing several cheat sheets for students to help them review
- Taking part of the class lectures
- Coordinating with the course chair for sending weekly emails
- Using several interactive websites to make learning fun such as Mentimeter and Kahoot
- Improving my leadership skills, work ethic, adaptability and public speaking skills

Five College Center for World Languages

Sep 2022 – December 2022

Conversation Partner Spoken Arabic Program (Levantine II)

Amherst, MA

- Lead speaking activities
- Created and reviewed weekly lesson plans with supervisors
- Planned role-plays to get students ready for real life events
- Built fun and supportive environment for learners
- Provided feedback to faculty after each session filling a report
- Attended training sessions
- Prepared students for the final oral exam worth forty percent of the total grade

TECHNICAL SKILLS

Programming Languages: Java, C, Python, HTML, JavaScript, CSS

Languages: Arabic, English, French (Fluent in all three)

PROJECTS

- **Project Clue:** Created a murder mystery game using C inspired by the game Cluedo
- **Project Booking a Covid Appointment:** Used threads, semaphores (binary and counting) written in C. Simulation of making the appointment for the COVID Test by multiple people at the same time. Illustrated threads, synchronization, and critical sections
- **Project Statistics Bot:** Implemented a network client that communicates to a remote server in C. The server responds to the client with a series of simple statistics problems that will be solved. Used various system calls provided by the socket API
- **Project Graph Coloring:** Implemented a graph structure and a graph coloring algorithm in Java. Used graph and graph-coloring algorithm to solve various problems involving conflict resolution and finding an optimal assignment of resources to accomplish a task or goal
- **Project Hashtable Database:** Used hash table implementation as a storage for login credentials, username, and password, for a website in Java. Password is stored in encrypted form for security. This is an industry standard practice
- **Project Prioritizing Streaming Data:** Implemented data structure called "priority queue" more specifically, a heap-based priority queue in Java. A futuristic automated emergency room (ER) triage system. The system receives data in the form of patient and injury pairs over time and automatically assigns patients to doctors as the resources become available depending on the severity of the patient's injury

LEADERSHIP EXPERIENCE

- Member of Lebanese Student Parliament 2017-2018
- Volunteer with the Lebanese Red Cross 2017-2018
- Certified Mediator of Conflicts