Tala Jaafari

Computer Scientist

Fascinated by the intersection of machine learning and mathematics.

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EDUCATION

MSc. Advanced Computer Science (Incoming)
University of Oxford

09/2023 - 09/2024

BSc Computer Science
American University of Beirut

08/2020 - 06/2023 *GPA: 4.0*

Relevant courses

- Intermediate Programming
- Programming Languages
- Web Development
- Machine Learning
- Algorithms and Data Structures
- Database Systems
- Numerical Analysis
- Algorithmic Graph Theory

Study Abroad
Virginia Commonwealth University

08/2022 - 12/2022 *GPA: 4.0*

Courses

- Theory of Computation
- Operating Systems
- Artificial Intelligence
- Software Engineering

EXPERIENCE

Machine Learning Research Intern
Lemonade Fashion

04/2023 - Present *Beirut, Lebanon*

Achievements/Tasks

- Designed the theoretical model of the company's recommender system.
- Designed and implemented the company's ML-based search engine.
- Wrote an engineering specification about the TikTok recommender system.

Algorithmic Graph Theory Researcher
American University of Beirut

06/2022 - Present

Achievements/Tasks

- Coded a C++ program that determines the pairs of triangulations where the flip sequence involves a move that increases the number of intersections between the source and target configurations.
- Implemented an algorithm in C++ that enumerates all possible triangulations of a simple convex polygon based on the Hurtado-Noy Hierarchy.
- Currently writing a paper about polynomial-time independent set reconfiguration.

SKILLS

- Machine Learning
- Software Development
- Algorithms
- Research

PROJECTS

Higgs Boson Particle Detector (02/2023 - 05/2023)

- Implemented a Wide and Deep model to distinguish between a signal process where Higgs Boson particles are produced and a background process with identical decay products but distinct kinematic features (Python).
- Won **first place (highest accuracy)** among 20+ teams.

Operating System Simulator (10/2022 - 12/2022)

- Implemented a multithreaded operating system simulator that creates processes and schedules them according to the algorithm chosen by the user (Java). Grade: 17 out of 15.

Artificial Intelligence Projects (10/2022 - 11/2022)

- A series of four projects about perceptron training, reinforcement learning, and data mining.
- Deemed exemplary by Professor Milos Manic at Virginia Commonwealth University.

Xfig Drawing Tool (08/2022 - 12/2022)

- Added features to the drawing tool Xfig through a series of 7 projects (C, AWS). Grade: 100/100.

Criminal Database System with Web-based Interface (04/2022 - 05/2022)

- Coded the front-end of the web app (HTML, CSS, JSTL, Javascript).
- Coded the back-end and connected it to the front-end (Java Servlets, JDBC, Apache Tomcat Server, MYSQL).
- Received the highest project grade among 100+ students (98/100).

HONOURS/AWARDS

Mark Sawaya Endowed Award (06/2023 - 06/2023)

Awarded to the graduating senior in computer science with the highest GPA.

MEPI Tomorrow's Leaders Scholarship Award (09/2020 - Present)

Only 20-25 students are selected annually out of a pool of 4000+ applicants (< 1% acceptance rate).

Dean's Honor List (Every semester) (09/2020 - Present)

Awarded to students with a GPA above 3.7.