

Rabeeh Abou Ismail

Edtech Software Engineer

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Education

American University of Beirut

Masters Computer Science: [2012-06—2015-06] (Bierut, Lebanon)

Bachelors Computer Science: [2009-06—2012-06] (Bierut, Lebanon)

Experience

Media Solutions

2017-Current *Senior Software Developer*

- Develop and maintain software applications using java, python, mySQL, HTML, CSS.
- Design and implement software solutions to meet customer requirements.
- Collaborate with other developers to create efficient and effective software solutions.
- Participate in code reviews and provide feedback.
- Follow established coding standards and best practices.

Phoenicia University

2018-2020 *University lecturer*

- Taught Courses with over 60 students, shifted between informal and formal methods of teaching to create multi-layered web of learning, incorporating experiments, practical and theoretical activities, discussions and projects into lessons.

Courses Taught

- **INTRO TO ALGORITHMS AND DATA STRUCTURES and INTRO TO PROGRAMMING**
Programming with Java and Python to teach students how to think and optimize code, explaining algorithms, space and time complexity and data structures.
- **WEB PROGRAMMING, WEB DESIGN**
Taught dynamic web pages for client-side frameworks using HTML, CSS, JavaScript. how to create a basic scalable and fluid website, setting up and configuring a web server using PHP, SQL, JQuery, XML, DOM objects, AJAX, JSON, on WAMP server and NGINX.
- **INTRO TO COMPUTING**
Taught word processing, spreadsheets application, presentation software and database systems using Microsoft Word, PowerPoint, Access, Excel, VBA, and SQL.

Media Solutions

2015-2016 *Junior Software Developer*

- Develop and maintain software applications using java and python.
- Retrieved data from various sources using requests library.
- Retrieved and organized data for analysis using libraries such as NumPy, pandas, matplotlib, requests.
- Troubleshoot and debug software applications.

American University of Beirut

2013-2015 *Teachers Assistant, Graduate Assistant*

- Held classes of 30 to 60 students, explained material not covered in depth in class and gave lab sessions for practical exercises, Created lesson materials, visuals and digital presentations to supplement lesson plans for courses such as Intermediate Programming and Data Structures, Algorithm Analysis, Introduction to computers.
- Graded assignments/projects and liaised between faculty and students to answer questions and optimize faculty time.

American University of Beirut

2010-2011 *Web Development and Database Management*

- Troubleshoot, added and debugged code on the university website ensuring compatibility with devices, browsers, and operating systems.
- Placed data on emails, forms and paper, in a unified database.
- Designing, Creating and handling forms, tables, for data entry in MS Access.
- Automating some data retrieval from various sources and unifying their format then appending them to the Data Base.

Project

BitBot	2021	an online futures trader bot that buys and sells crypto contracts using prespecified strategies. Implemented using python using the BitMEX API (BitMEX is a cryptocurrency exchange and derivative trading platform)
Castle Wars	2021	a complete 2D 2 player tower defense game with buildable units and 2d animation
LIV	2020	a 2D top-down bullet-hell game in a Sci-Fi setting where you control a spaceship and shoot at enemies — Developed using GML on Game Maker Studio
Master's Thesis	2015	Thesis Specification construction using equivalence relations and SMT solvers — Developed using C++ on Linux
COOL compiler	2013	a compiler for Classroom Object Oriented Language — developed using JAVA
Visual Interactive Simulation	2012	an educational 3D environment that explains through text and visual animations and mini puzzles some biological concepts about RNAs. — Developed using C++ OpenGL on Windows
GLBunny	2011	3D avatar that moves around a maze environment that can shoot fireballs using particle physics with a health bar and enemies to shoot — Developed using C++ OpenGL on Windows
BASIC BANK	2010	a basic banking system with user accounts balance management and different account types — Developed using JAVA utilizing OOP features such as inheritance, interfaces and abstract classes

Skills

Multicultural teacher and software engineer, Experienced with Object Oriented Programming and Spreadsheet Analysis, passionate about teaching, developing and working with other people. I strive to learn from more experienced developers.

Programming: Python, Java, HTML, CSS, VBA, MySQL, GML, C++, JavaScript, PHP, OpenGL, SPARQL, Z3 Syntax (SMT), OWL

Theory: Data Structures, OOP, Algorithm Analysis, FOL, Formal Logic (SPARQL, SMT, Z3, OWL)

Knowledge: Git, windows, Linux, GameMaker Studio, Autodesk Maya, Microsoft Excel, Access, PowerPoint and Word, Knowledge Representation and Reasoning.

Spoken Languages: English, Arabic.