

Hadi Al Khansa

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EDUCATION

09/2018-10/2020 American University of Beirut (AUB)

- Master of Civil Engineering/ Cumulative GPA: 96/100.
- Sap2000 instructor for final year project students.
- Thesis title: A Computationally Efficient Framework for Optimizing the Designs of Reinforced Concrete Special Moment Resisting Frames.

09/2014 -06/2018 American University of Beirut (AUB)

- Bachelor of Civil and Environmental Engineering/ Cumulative GPA: 90.41/100.
- Placed eight times on the Dean's Honor List and graduated with High Distinction.

09/1999 -06/2014 Hariri High School II

- Lebanese Baccalaureate in General Sciences.
- Graduated with high excellence /Grade: 17.7/20 (ranked third for the last three years).

EXPERIENCE

012/2020- 01/2021 Construction Management Consultant Co.

Position held: Structural Engineering Intern

- Design Review: Identified and reported to the client errors in designer's proposed structural system and specifications.
- Value Engineering: Studied the safety and economics of structural design alternatives.

09/2018- 10/2020 Civil and Environmental Engineering Department, AUB

Position held: Graduate Research and Teaching Assistant

- Developed a computationally efficient framework for optimizing the costs of constructing reinforced concrete building frames using MATLAB.

MATLAB Source Code (Undocumented):

<https://www.dropbox.com/sh/6z0s7rt4s6ufwg2/AADELDCI9bB1yRKAeyjAkwyBa?dl=0>

- Investigated Artificial Neural Networks as alternatives for the traditional analysis of building frames.
- Performed administrative tasks, proctored during exams, and corrected assignments and quizzes.

05/2017- 06/2017 Dar Al- Handasah (Shair and Partners)

Position held: Structural Engineering Intern

- Designed structural components (columns, beams, and walls) for the KATARA Hotel project in Doha.
- Verified structural components for the AlMaktoum Project in Dubai.

SOFTWARE PROJECTS

Cubee's Survival Game for Android

A survival shooter game developed using the Unity game engine for Android smartphones. All of the logic of the game is programmed using C# language. The game includes a top ten leaderboard to showcase the scores of the best players worldwide.

App link: <http://slide.me.org/application/cubee-s-survival>

Typing Simulator for Windows

This program can simulate typing on a keyboard at different typing speeds. First, the user enters the text they want the software to type in a text box, and then the user specifies the duration between typing consecutive characters. Finally, the program will type the text box content in the location the user chooses. This software was developed in Visual Studio using Windows Forms and C#.

Project and Instructions: <https://www.dropbox.com/sh/d42py47q4vjy2h5/AAAtacEz-1XtSFbwyYfruYla?dl=0>

Innovation Club ID Card Generator

This program prompts the user to enter a “Code” unique to a member of the innovation club, reads information about this member from a database, and then displays this information in the form of an ID Card that also includes the passport picture of the member. Finally, pressing “Generate” saves the ID Card as an image. This software was developed in Visual Studio using Windows Forms and C#.

Project and Instructions: <https://www.dropbox.com/sh/ccas98bxauegsf/ABuOta1vQ-v2gf3JJEO8VgSa?dl=0>

Structural Analysis Using the Direct Stiffness Method

MATLAB was used to implement the Direct Stiffness Method for 2D members made of Bernoulli beam and truss elements. The members can have arbitrary angles relative to the x-axis, can support complex loading conditions (support settlements, thermal loads, arbitrary distributed loads, inclined loads...), and the beam members can be assigned moment releases and rigid offsets at both ends. The code reads inputs to an excel file and exports the calculated forces and displacements to an excel file.

Project and Instructions: https://www.dropbox.com/sh/2i9c4oun314bne6/AAAWTEU-g99xs_boZ9JXNe2a?dl=0

CERTIFICATIONS/ AWARDS

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|----------------|---|
| 01/2020 | Certified Microsoft Innovative Educator |
| 07/2018 | Graduate Fellowship, Department of Civil and Environmental Engineering, AUB |
| 01/2018 | Expertise Training Center Etabs 2015 – Advanced Certification |
| 12/2016 | CASESOFT Etabs Essential Training Certification |
| 01/2015 | Expertise Training Center Revit Architecture 2014 – Intermediate Certification |

EXTRACURRICULAR ACTIVITIES

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|--------------------------|---|
| 03/2017 – 05/2017 | AUB Outdoors Undercover Safety Team Member |
| 09/2016 – 10/2017 | AUB Innovation Club Secretary |
| 08/2016 – 12/2017 | AUB New Students’ Orientation Guide |

SUMMARY SKILLS

COMPUTER SKILLS: MATLAB, Python, C#, C++, Unity, Neural Networks, Regression, K-Means Clustering, Classifiers, Word, Excel, PowerPoint, Revit, AutoCAD, Sap2000, Etabs, SAFE.

LANGUAGES: Fluent in English and Arabic.