MOHAMAD HALLAL

Austin, USA
+1 512 552 2669 • mhallal@utexas.edu

EDUCATION

University of Texas at Austin, Austin, USA **Expected May 2022**
Ph.D. in Civil and Environmental Engineering (Geotechnical)

University of Texas at Austin, Austin, USA **May 2021**
M.S. in Statistics
GPA: 4.0/4.0

University of Texas at Austin, Austin, USA **May 2019**
M.S. in Civil and Environmental Engineering (Geotechnical)
GPA: 4.0/4.0

American University of Beirut, Beirut, Lebanon **May 2017**
B.E. in Civil and Environmental Engineering
GPA: 4.0/4.0

University of New Mexico, Albuquerque, USA **Jan. 2016 - May 2016**
Completed 15 credits in graduate and undergraduate level civil engineering courses
GPA: 4.33/4.0

RESEARCH EXPERIENCE

American University of Beirut, Beirut, Lebanon **Sep. 2016 – Aug. 2017**
- Conducting a thorough literature review on earth construction
- Identifying a suitable local soil to be used in the construction of a temporary sustainable camp made of from earth structures intended to host refugees in Lebanon
- Investigating and studying the effect of different mix designs on the strength and durability of earth structures (preparing and testing specimen for unconfined compression strength, flexural strength, water absorption, and erosion)
- Designing and conducting structural analysis of the proposed earth structures

University of Illinois at Urbana-Champaign, Champaign, USA **Jun. 2016 - Jul. 2016**
- Reviewed contemporary and previous research on site response analysis
- Created and programmed an Excel workbook and a Jupyter Notebook that calculate and plot the site amplification and surface response spectra based on linear and non-linear amplification models
- Wrote Python scripts for plotting velocity profiles, soil properties, input Fourier amplitude spectra, and input response spectra
- Investigated the coverage of input data such as ground motion intensity measures and velocity profiles by plotting histograms and log-log graphs using Grapher and Python

University of New Mexico, Albuquerque, USA **Jan. 2016 - May 2016**
- Planned and implemented a thorough testing program aimed at investigating the engineering properties of more than 20 soil samples to be used to produce earth blocks
- Performed site visits to resolve problems associated with the block construction process
- Implemented changes to the block construction process such as proper mixing and sieving and investigated their effects on block properties

TEACHING AND LAB EXPERIENCE

American University of Beirut, Beirut, Lebanon **Jan. 2015 - Jan. 2016**
Lab Assistant, Soil Mechanics Laboratory

- Involved in executing testing programs for site investigations of projects at the local and regional levels
- Measured the index properties of soil samples (grain size distribution, Atterberg limits, compaction, specific gravity, and expansion index)
- Tested and calculated shear strength properties of soil samples from site investigations (conducted direct shear tests, unconfined compression tests, consolidated triaxial tests, and 1-D consolidation tests)
- Trained and mentored new lab assistants

American University of Beirut, Beirut, Lebanon **Sep. 2015 - Dec. 2015**
Teaching Assistant, Statics for Engineering Students

- Instructed and assisted students during problem solving sessions
- Corrected and graded students' assignments

HONORS AND AWARDS

Lebanese Official Exams Merit Scholarship **Sep. 2013 - Present**
National Council for Scientific Research

- Awarded full undergraduate scholarship for ranking in the first place in Lebanon in the official exams, General Sciences section

Dean's Honor List **All semesters enrolled**
Faculty of Engineering and Architecture, American University of Beirut

- Scored an overall average of 85 or more
- Deemed worthy by the Dean to be on the Dean's Honor list

Certificate of Achievement **Apr. 2015**
American University of Beirut

- Scored in the 99th and 91st percentile in mathematics and critical thinking respectively in the Collegiate Assessment of Academic Proficiency (CAAP) test at the national level

First place in the Lebanese Official Exams **Jul. 2013**
Republic of Lebanon, Ministry of Education & Higher Education

- Ranked first in Lebanon among more than 7,000 students
- Scored the highest grade average in the history of Lebanese Official Exams

High School Merit Scholarship **Sep. 2010 - Jul. 2013**
Le Lycee National School

- Awarded a 50% scholarship in high school for scoring more than 90% grade average

TECHNICAL SKILLS

- Proficient with Microsoft Word, Excel, PowerPoint, and Grapher.
- Experienced with C++, Python, Jupyter Notebook, and MATLAB programming.
- Experienced with the technical software SAP2000, AutoCAD, Revit, Arc GIS, and EPANET.
- Proficient in reading, writing, and speaking fluently in English and Arabic (native).

REFERNCES

- Available upon request