Ahmed Ghith, PhD

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SUMMARY

- Strong knowledge of relevant Building codes.
- Research focus on seismic design of structural and nonstructural components.
- Strong knowledge of finite element analysis (FEA) and adaptability to other software.
- Work experience as a structural engineer with experience in both design and field in a consulting environment.
- Proven skills in teamwork, multitasking, adaptability, meeting deadlines, and working with different stakeholders.
- Ability to register as EIT, awaiting completion of 1 year Canadian experience for P.Eng.
- Willing to relocate.

WORK EXPERIENCE

- **Structural designer and Site Engineer** Gheith Consultant Bureau, Egypt 8/2011 - 4/2014

Structural design and analysis of various structures subjected to gravity loads and seismic loads, and meeting set deadlines during project progress within budget, including but not limited to:

- ❖ High (up to 12 stories) and low-rise buildings (slabs, columns, and foundation)
- ❖ under and above ground tanks
- ❖ retrofit of damaged structures

Field engineer during construction in different projects and several phases, dealing with different stakeholders (contractors, workers, engineers, owner, and government agencies), and meeting milestone deadlines, including, but not limited to:

- ❖ deep foundations
- ❖ large scale shallow foundations (Raft)
- ❖ columns and slabs scaffolding, reinforcement, and concrete pouring

- **Lab Engineer** (Part-time), Concrete Lab, Cairo University, Egypt 8/2011 – 4/2014

Material engineer adhering to a client request based on the code recommendations and provisions, duties included but not limited to:

- ❖ Concrete mix design (including additives)
- ❖ Concrete and steel capacity testing
- ❖ Quality control
- ❖ Bridge load test

OTHER WORK EXPERIENCE

- **Research Assistant**,
- ❖ McMaster University, Civil Engineering Department, Canada 5/2014 – 4/2020

Conducting doctoral research in structural engineering with a focus on the seismic performance of nonstructural components located in Nuclear power plants and substations, development of an experimentally validated nonlinear numerical model (OpenSees) to perform fragility analysis and comparison to current codes and standards. The experimental program consisted of both shake table testing and quasi-static testing**.**

❖ Cairo University, Structural Engineering Department, Egypt 9/2011 - 9/2013

Conducting MSc research in structural engineering with a focus on the rehabilitation (repair) of cracked fire damaged beam-column connection using Near Surface Mounted (NSM) Fiber Reinforced Polymers (FRP) strips.

- **Teaching and mentoring experience,**

McMaster University, Civil Engineering Department, Canada 5/2014 – 4/2020
Cairo University, Structural Engineering Department, Egypt 1/2012 - 4/2014
Leading tutorials, grading assignments, invigilating, marking exams and office hours in several undergraduate courses for classes up to 200 students.

EDUCATION

- **McMaster University**, Ontario, Canada 5/2014 – 4/2020

Doctorate, Civil Engineering department, CANRISK CREATE program
Dissertation Title: Experimental and analytical strategies to assess the seismic performance of auxiliary power systems in critical infrastructure

- **Cairo University**, Cairo, Egypt 9/2011 – 9/2013

Master of Science, Structural Engineering department, GPA 3.8
Dissertation Title: Rehabilitation of Beam-Column Connection Exposed to Fire using Near Surface Mounted FRP Strips

- **Cairo University**, Cairo, Egypt 9/2006 – 7/2011

Bachelor's degree, Civil Engineering department
Cumulative grade: Excellent with honor degree
Graduation project: Design of reinforced concrete structures (design and detailed drawings for 16 stories hotel with a ballroom roof, and an Olympic sized pool with a diving tower)

EXTRA COURSEWORK

- **CANDU Configuration Overview Course,** CNS, Ontario, Canada 10/2017

This one-day workshop is designed to explain the basic layout of a nuclear station and the function of different nuclear power plant equipment, as part of the 11th International Conference on CANDU Maintenance and Nuclear Components.

- **Mini-MBA course,** McMaster University, Ontario, Canada 2/2019 - 3/2019

This course gives an introduction to the core concepts of business. The course also provides knowledge of different strategies for solving business problems.

COMPUTER SKILLS (ADAPTABILITY TO OTHER PROGRAMES)

- CAD Drafting: advanced knowledge in Autodesk AutoCAD
- Finite element analysis: advanced knowledge in SAP2000
- Computer Languages: Advanced knowledge in MATLAB
- Architectural graphic design: advanced knowledge in SketchUp
- Microsoft Office: advanced knowledge in MS Word, MS Excel, and MS PowerPoint

SCHOLARSHIPS AND AWARDS

- **McMaster University**: International Excellence Award (3 times) 9/2014-8/2017
- **McMaster University**: Ahmed Ghobara Scholarship 9/2014-4/2015
- **Natural Science and Engineering Research Council of Canada (NSERC):** CANRISK CREATE program scholarship 9/2016-4/2018
- **McMaster University**: Research Scholarship 5/2014-4/2018
- **McMaster University**: Tuition Bursary 5/2014-4/2018

VOLUNTEERING

- **McMaster University:** Engineering and Science Olympics 10/2015 &10/2016

help high school students in engineering and science related competitions

EXTRACURRICULAR ACTIVITIES

- Outdoor activities
- Sports (karate)