# Zakieh Mohammadi, MSc, EIT

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#### **PROFILE**

Experienced Civil/Geotechnical Engineer with five years of work experience in the construction industry. Currently completing Ph.D. in Geotechnical Engineering, with research focused on climate change-impacted infrastructures in permafrost regions. Looking for a challenging opportunity in a progressive organization in order to apply technical and analytical knowledge.

**Education and Professional Development:** consistently maintained a high GPA throughout my studies; Eager learner, constantly seeking to expand my knowledge and skills; actively sought to be involved in academic life and attended and presented in various conferences and workshops; on track to become a registered engineer.

**Technical and Analytical Knowledge:** proficient in soil mechanic tests; skilled in GeoStudio, AutoCAD and Microsoft Office; skilled in data visualization and statistical analysis using R programming; familiar with Python, HTML, CSS, and AWS.

**Management and Scheduling:** coordinated a team of drafters to produce construction drawings; worked on high-paced large construction projects.

**Communication and Interpersonal Skills:** effective team player worked with large and diverse engineering teams; led the onboarding process for new hires and provided guidance and watched their development; worked with a network of permafrost scientists and engineers as part of my Ph.D. project; detail-oriented; flexible and able to adjust to changing circumstances and environments

# **EDUCATION**

# Ph.D. in Geotechnical Engineering

Jan. 2020-present

University of Calgary, Alberta

Expected graduation date: April 2024

Research project: Developing a framework for predicting thaw-settlement in permafrost regions

### M.Sc. in Geotechnical Engineering

Sep. 2009 - Sep. 2012

Bu-Ali Sina University, Hamedan, Iran

Research project: Investigated the influence of pore fluid characteristics and heavy metal contaminants on the swelling and self-sealing behaviour of smectite.

Top-ranked student

### **B.Sc.** in Civil Engineering

Sep. 2005 - Sep. 2009

Bu-Ali Sina University, Hamedan, Iran

Top-ranked student, Merit-based admission for a Master of Science in Geotechnical Engineering

# **WORK EXPERIENCE**

#### **Graduate Teaching Assistant**

Sept 2021-Present

Schulich School of Engineering, University of Calgary

TA for: Statics; Geotechnical Engineering II; Uncertainty Concepts in Civil Engineering; Uncertainty, Risk and Reliability; Introduction to Project Management; Project Planning and Control; Project Construction Management

- Conducted lab sessions, office hours, and tutorials.
- Helped students with their queries.
- Provided feedback for reports, assignments, projects, and presentations.

# Civil/Geotechnical Engineer

Kayson Inc.

Tehran's Chamber of Industry Project, Tehran, Iran

- Investigated the applicability of the top-down construction approach and provided geotechnical assistance to ensure the safe and efficient progress of the underground structure and excavation sequences.
- Created detailed shop drawings and execution sequences for the underground structure as well as monitored progress in excavation and retaining wall construction.
- Communicated with the construction management team to plan and execute the excavation safely and efficiently due to limited working space.

## **Shop Drawing Team Lead**

Perlite Construction Company

Iran Mall 10-level Precast Underground Parking, 300,000 m² area, Tehran, Iran

- Supervised a team of three drafters to produce shop drawings for more than 2,000 precast concrete elements such as columns, beams, and slabs.
- Ensured designs were accurate and error-free, resolving conflicts between mechanical, architectural, and structural drawings and specifications.
- Collaborated with the consultant firm, project management team, and BIM team to ensure no conflicts in shop drawings.

# **Junior Civil Engineer**

Apr. 2013 - Dec. 2015

Perlite Construction Company

Iran Mall Project, 1,400,000 m2 Area, Tehran, Iran

- Created shop drawings using AutoCAD for concrete and steel structures accurately and efficiently.
- Drafted and submitted RFI letters to address construction clashes and conflicts.
- Communicated regularly with site engineers, the project management team, and BIM team, providing updates and reports on project progress.
- Controlled and verified as-built drawings for concrete and steel structural elements.
- Instructed and guided newly hired team members on relevant procedures.

### **VOLUNTEER EXPERIENCE**

## **Seminar Coordinator**

Sep 2022 - Present

NSERC PermafrostNet

Organized and hosted monthly presentations and workshops on permafrost-related topics.

### **GRC** Representative

Jul 2021 - Jul 2022

Civil Engineering Graduate Society, University of Calgary

Actively participated in the event organization and advocated for graduate students in Civil Engineering Department in Graduate Student Association meetings.

### **Book Revision Editor**

Sep 2010 - Sep 2011

Bu-Ali Sina University

Collaborated in editing and revising a textbook titled "Application of Elasto-Plasticity Theory in Soil"

**VP Event** Sep. 2006 - Sep. 2009

Civil Engineering Undergraduate Society, Bu-Ali Sina University

Organized educational and supportive workshops for undergraduate students.

# PROFESSIONAL DEVELOPMENT

## Engineer-in-Training, APEGA

Member of Permafrost Young Researchers Network

Member of Canadian Permafrost Association

Aug. 2018 - Jul. 2019

Dec. 2015 - Aug. 2017