

## MARJAN GHOTBIZADEH, M.Sc., E.I.T

<https://www.linkedin.com/in/marjan-ghotbizadeh/>

<https://scholar.google.ca/citations?hl=en&tzom=420&user=DtxEahQAAAAJ&authuser=2>

### SUMMARY

Dedicated professional with over 12 years of comprehensive experience in Academia, Consulting Industry, and Government sectors. Specialized in water quality and quantity management, data analysis, and environmental research. Proficient in utilizing advanced analytical tools and techniques. Adept at managing multiple priorities, fostering collaboration, and contributing to team goals.

### RELATED EXPERIENCE

#### Environmental Scientist, California State Water Resources Control Board

May 2024 – Present

Sacramento, California

- Implemented statewide vegetation treatment activities to mitigate wildfire impacts and protect water quality.
- Coordinated with state and federal agencies to develop and implement the Forestry Activities Program (FAP) and Wildfire Resilience Program.
- Conducted field inspections and developed permits for vegetation management and wildfire mitigation.
- Reviewed legislative changes and proposed improvements to Best Management Practices (BMPs) for water quality protection.

#### Director, CoralLeaf Insight Ltd.

Oct 2023 – Present

Edmonton, Alberta

- Led establishment and registration of CoralLeaf Insight Ltd., specializing in data analytics and environmental engineering.
- Managed business development, financial planning, and operations.
- Executed data analysis projects with the University of Alberta, providing valuable insights to oilsand clients including Suncor and Hatfield Co.

#### Water Supply Data Specialist, Government of Alberta, Alberta Environment & Parks

May 2022 – May 2024

Edmonton, Alberta

- Managed real-time and historical water data, ensuring quality control and accessibility.
- Led QA/QC of water supply data, enhancing accuracy and reliability.
- Enhanced existing applications and data systems, promoting data quality and accessibility.
- Supported stakeholders, staff, consultants, and citizens to responsibly utilize data.
- Acted as acting supervisor for 2 weeks during critical events.

#### Surface Water Specialist, Government of Alberta, Alberta Environment & Parks

Nov 2021 – Mar 2022

Edmonton, Alberta

- Provided expertise in surface water for regional planning frameworks.
- Evaluated water quality and quantity indicators, reporting findings.
- Contributed to the development of management systems and assessment tools.
- Supported the transformation of regulatory processes in Alberta.

#### Research Assistant / Data Analyst, University of Alberta

July 2020 – Oct 2023

Edmonton, Alberta

- Processed and analyzed data for the Lake Miwasin project.
- Compiled, QC'd, and summarized analytical data for the SWAMP lab.
- Proficient in water quality measurement instruments and fieldwork.
- Published scientific papers and technical documents for various projects.
- Well-versed in provincial and federal regulations and guidelines, ensuring compliance.

#### Data Analyst (Internship), University of Alberta (Medo)

Jun 2019 – Dec 2019

Edmonton, Alberta

- Picture Archiving and Communication Systems.
- Data analysis.
- Liaising with the AI development team.
- Monitored and maintained data collection records.

**Graduate Research Assistant Fellowship, University of Alberta**

Jan 2018 – July 2020

Edmonton, Alberta

- Conducted advanced analytical data processing, including assessing data quality and distributions, implementing appropriate treatments, and employing diverse methods for data visualization and significance testing.
- Gained field experience through surface water sampling and measuring parameters like hydraulic conductivity, pH, dissolved oxygen, and velocity.
- Prepared data reports for over 15 publications, contributing to research outcomes.

**Irrigation System Designer, Pirasteh Shiraz Consulting Engineer Co.**

Aug 2015 – May 2017

Shiraz, Iran

- Designed efficient and cost-effective irrigation systems.
- Created detailed drawings, materials lists, and cost estimates.
- Collaborated with stakeholders to ensure design implementation.

**Teaching Assistant, Shiraz University**

Sep 2008 – Jan 2013

Shiraz, Iran

- Supervised undergraduate students working on research projects.

**RELATED SKILLS**

- Data analysis: SPSS, R-studio, Minitab, SQL, Python, Arc GIS
- Water quality analysis: Visual Minteq, Goldsim
- Technical skills: TEM-EDX, SEM, AF4, ICPMS
- Strong interpersonal and communication skill
- Project management

**EDUCATION****Data Science, University of Waterloo (01/2023-04/2023)**

- *Received training in statistical concepts and techniques including regression, correlation, and clustering. Applied data visualization skills to influence decision-making.*

**M.Sc. in Civil and Environmental Engineering, University of Alberta (01/2018-06/2020)**

- *Thesis focused on spatiotemporal variations of various forms of trace elements in water systems. Developed novel methods for colloid analysis and contributed to multiple publications.*

**M.Sc. in Irrigation and Drainage Engineering, Shiraz University (09/2010-01/2014)**

- *Conducted research on atrazine isotherms and achieved exceptional academic performance. Graduated with a high GPA and published relevant papers.*
- *Investigated the thresholds of irrigation water salinity and soil water content affecting growth inhibition in vetiver plants.*

**B.Sc. in Water Engineering, Shiraz University (09/2006-08/2010)**

- *Recognized for outstanding academic performance.*

## **CERTIFICATE**

- Lean Six Sigma Principles - Green Belt, State Water Resources Control Board, Aug 2024.
- GIS, UC Davis Continuing and Professional Education, Aug 2024.
- Water Quality Regulation and Permitting, State Water Resources Control Board, Jul 2024.
- Foundations of Data Science, University of Waterloo, April 2023.
- Data Analyst with Python, DataCamp, Issued Feb 2023.
- Foundations of Project Management, Google, Issued Nov 2022.
- Data Analysis with Python, IBM, Issued Apr 2022.
- Fitness Coach, Ministry of Youth and Sport, Issued Mar 2015.
- GIS, Iran Technical & Vocational Training organization, Issued Jan 2011
- Computer Diploma, Iran Technical & Vocational Training organization, Issued Jan 2003.

## **AFFILIATION**

- California Association of Professional Scientists (CAPS) California Association of Professional Scientists (CAPS).
- Association of Professional Engineers and Geoscientists of Alberta (APEGA).
- American Water Works Association (AWWA).
- Canadian Association on Water Quality (CAWQ).
- European Geosciences Union (EGU).
- Iranian Students' Association of University of Alberta (ISAUA).
- Iranian Agricultural and Natural Resources organization.

## **ACHIEVEMENTS**

- First rank Graduate Presentation, ALES Graduate Research Symposium, Edmonton, Alberta, March 2020.
- Division winner with the highest season-long sprite rating in University of Alberta's Beach Volleyball Championship, Summer 2018, Edmonton, Alberta.
- outstanding Graduate Poster Presentation Award, 101st Canadian Chemistry Conference and Exhibition Edmonton, Alberta, May 2018.
- 3rd place runner-up, winner of the 2017 Field Research office (FRo) Photo Contest.
- Student Award for outstanding academic performance (M.Sc.), Shiraz University, Iran, Jan 2014.
- Graduate Teaching Award, Shiraz University, Iran, Jan 2011.
- Second rank student in M.Sc. of Drainage Engineering Body Entering, Shiraz University, Jan 2011.
- Student Award for outstanding academic performance (B.Sc.), Shiraz University, Iran, Jan 2010.
- Second Position in University Shooting Sport Championship, Shiraz University, Iran, Jan 2009.

## **VOLUNTEER EXPERIENCE**

- VP INTERNAL, Iranian Students' Association of University of Alberta.
- Fundraising, supporting "Kids Up Front Edmonton".
- Volunteered with the fraternity of Phi Gamma Delta at the Taste of Edmonton food festival, to help support local service groups, and "not for profits" charities.
- Ultra-clean, metal-free SWAMP lab of the University of Alberta (prior to MSc).
- Natural Resources Analytical Laboratory (NRAL) lab of the University of Alberta (prior to MSc).
- Sample collection in the field, Athabasca River, fall 2017 (prior to MSc).

## **REFERENCES**

- Michael Hanks, Sr. Environmental Scientist (Supervisory), Waterboards, Email: michael.hanks@waterboards.ca.gov
- Professor William Shotyk, University of Alberta, Email: shotyk@ualberta.ca