

## PERSONAL INFORMATION **Ebrahim Ghaderpour**

**Nationality** Iranian-Canadian

### WORK EXPERIENCE

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June 2022-present **Assistant Professor in Remote Sensing for Engineering Geology**

Dipartimento di Scienze della Terra - Sapienza Università di Roma - P.le Aldo Moro, 5 - 00185 Roma, Italy

- Training and supervising graduate students and researchers
- Investigating ground deformation processes through remote sensing techniques

May 2020-present **Founder and CEO**

Earth and Space Inc., Calgary, AB, Canada

- Preparing proposals and prototypes
- Training and supervising data scientists
- Developed novel time series analysis techniques for processing Earth observation data

June 2021 - May 2022 **Postdoctoral Associate**

Department of Geomatics Engineering, University of Calgary, 2500 University Dr NW, Calgary, AB, T2N 1N4, Canada

- Conducted research in the areas of hydrology and climate change
- Prepared proposals and reports for grant applications
- Provided technical support to the graduate students

September 2016 - April 2022 **Sessional Instructor**

Department of Mathematics and Statistics, University of Calgary

- Taught twelve undergraduate courses
- Prepared lectures, videos, labs, assignments, and exams
- Supervised teaching assistants

January 2021 - April 2022 **Sessional Instructor**

Department of Mathematics and Computer Science, University of Lethbridge, Calgary Campus

- Taught three undergraduate courses
- Prepared lectures, videos, labs, assignments, and exams

September 2019 - April 2020 **Research Associate**

University of Calgary and Alberta Environment and Parks

- Developed a software package to compute climate indices
- Investigated the relationship between climate and water flow in Alberta
- Trained graduate students and government employees

July 2016 - July 2018 **Postdoctoral Scholar**

Department of Mathematics and Statistics, University of Calgary

- Proposed novel methods of seismic data regularization
- Trained graduate students for seismic data processing

May 2016 - April 2019 **Remote Sensing Scientist**

Farmers Edge Inc., Lethbridge, AB, Canada

- Developed code and proposed robust methods for management zone delineation, disease forecasting, and cloud-shadow detection
- Conducted field survey and trained several employees at Farmers Edge

September 2013 - April 2016 **Research and Teaching Assistant**

Department of Earth and Space Science and Engineering, York University, 4700 Keele Street Toronto, ON M3J 1P3, Canada

- Proposed robust methods of analysing unequally sampled time series
- Analysed gravity, global positioning system, interferometry, and astronomical time series
- Taught many engineering, data science, and environmental courses as a teaching assistant

September 2010 - August 2013 **Research and Teaching Assistant**

Department of Mathematics and Computer Science, University of Lethbridge, 4401 University Dr West, Lethbridge, AB T1K 3M4, Canada

- Introduced signed group orthogonal designs and improved some results for the existence of orthogonal designs and Hadamard matrices of certain orders
- Proved the Hamiltonicity of Cayley graphs of certain orders
- Taught many mathematics and computational courses as a teaching assistant

EDUCATION AND TRAINING

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October 2018 **Doctor of Philosophy | Remote Sensing**

Exceptional Dissertation Entitled: "Least-Squares Wavelet Analysis and Its Applications in Geodesy and Geophysics"

York University, Toronto, ON, Canada

September 2016 **Teaching Certificate**

Taylor Institute for Teaching and Learning, University of Calgary, Calgary, AB, Canada

May 2014 **Doctor of Philosophy | Theoretical and Computational Science**

Dissertation Title: "Asymptotic Existence of Orthogonal Designs"

University of Lethbridge, Lethbridge, AB, Canada

January 2010 **Master of Science | Mathematics**

Dissertation Title: "Polynomial Numerical Hull for Operators on Hilbert Spaces"

Isfahan University of Technology, Isfahan, Iran

January 2007 **Bachelor of Science | Applied Mathematics**

University of Isfahan, Isfahan, Iran

## HONOURS AND AWARDS

- 2019 York University Distinguished Scholar Prize
- 2016-2018 Postdoctoral Scholarship from Pacific Institute for the Mathematical Sciences (PIMS)
- 2015 Best Paper Award in Geodesy from the Canadian Geophysical Union
- 2015 Best Presentation Award from York University
- 2013-2015 York Graduate Scholarships and Awards from York University
- 2015 Top Student at York University
- 2010-2013 Advantage and Admission Awards from the University of Lethbridge
- 2010-2012 Top Student at the University of Lethbridge
- 2003-2010 On the Dean's Honour List Every Semester

## SKILLS

- Languages** Farsi (native), English (professional), Arabic (basic), Italian (beginner)
- Computer skills** - Programming: Python, MATLAB, C++, Maple, Java, R, GIS, WeBWork  
- Document Creation: Latex, Photoshop, Microsoft Office Suite (Excel, Word, PowerPoint)
- Other skills/hobbies** Biking, Bodybuilding, Driving, Hiking, Painting, Ping Pong, Soccer, Tennis

## PUBLICATIONS

Please refer to the following websites for the list of my publications:

- **Publons:** [www.publons.com/researcher/3184787/ebrahim-ghaderpour](http://www.publons.com/researcher/3184787/ebrahim-ghaderpour)
- **Researchgate:** [www.researchgate.net/profile/Ebrahim-Ghaderpour](http://www.researchgate.net/profile/Ebrahim-Ghaderpour)
- **ORCID:** [www.orcid.org/0000-0002-5165-1773](http://www.orcid.org/0000-0002-5165-1773)
- **As of June 1st, 2022, my h-index is 12 according to the Web of Science and Scopus**

Table 1: The summary of my publications.

Publications	Total Count
Peer-Reviewed Journal Articles	28
Book Chapters	1
Patents	1
Technical Reports	4
Conference Proceedings	2
Presentations Abstracts	13
Posters	2
<b>Grand Total</b>	<b>51</b>

## TEACHING EXPERIENCE

**Sessional Instructor** Department of Mathematics and Statistics, University of Calgary, Canada

Winter 2022 Introduction to Statistics I  
 Falls 2017, 2020, 2021 Differential Equations for Engineers and Scientists  
 Winter 2021 Linear Methods I  
 Winter 2021 Mathematical Methods: Signal Processing  
 Winters 2017, 2020 Multivariable Calculus for Engineering and Scientists  
 Fall 2019 Calculus III  
 Falls 2016, 2017, 2019 Calculus I

**Sessional Instructor** Department of Math and Computer Science, University of Lethbridge, Canada

Fall 2021, Winter 2022 Calculus for Management and Social Sciences  
 Winter 2021 Calculus II

**Teaching Assistant** Department of Earth and Space Science and Engineering, York University, Canada

Winter 2016 Electricity, Magnetism, and Optics for Engineers  
 Falls 2013, 2014, Winter 2016 Earth Environment  
 Fall 2014, Winter 2015 Adjustment Calculus  
 Winter 2014 Continuum Mechanics  
 Summer 2014 The History of Astronomy

## SERVICES

**Editor** Guest editor of the following special issues:

- **Advances in Time Series Analysis in Sensors (MDPI):** [www.mdpi.com/journal/sensors/special\\_issues/A\\_TSA](http://www.mdpi.com/journal/sensors/special_issues/A_TSA)
- **Artificial Intelligence and Sustainability in Sustainability (MDPI):** [www.mdpi.com/journal/sustainability/special\\_issues/sustai\\_artificialintelligence](http://www.mdpi.com/journal/sustainability/special_issues/sustai_artificialintelligence)

**Chairman - Program Committee** The 8th International conference on Time Series and Forecasting (ITISE)

**Reviewer** Peer-reviewed over 250 articles for various journals and publishers. A list of the verified reviews is available at [www.publons.com/researcher/3184787/ebrahim-ghaderpour](http://www.publons.com/researcher/3184787/ebrahim-ghaderpour)

**Supervision** Trained and supervised many researchers on the areas of big data analytics

**Memberships** Active board member of the Calgary Tesla Society, Canadian Geophysical Union (CGU), and International Union of Geodesy and Geophysics (IUGG)