PERSONAL INFORMATION   Ebrahim Ghaderpour

WORK EXPERIENCE

June 2022–present   ### Assistant Professor in Remote Sensing for Engineering Geology

Department of Earth Sciences - Sapienza University of Rome - P.le Aldo Moro, 5 - 00185 Roma, RM, Italy

– Training and supervising graduate students and researchers
– Investigating ground deformation processes through remote sensing techniques
– Analyzing remote sensing and Radar data for monitoring landslides and cultural heritage

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 ▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬ ■

October 2018	**Doctor of Philosophy ⎪ Big Data Analytics**

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
2013–2015	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

– **Researchgate:** www.researchgate.net/profile/Ebrahim-Ghaderpour

– **ORCID:** www.orcid.org/0000-0002-5165-1773

– **As of February 2023, my h-index is 15 according to the Web of Science and Scopus**

Table 1: The summary of my publications.

Publications	Total Count
Peer-Reviewed Journal Articles	42
Book Chapters	2
Patents	1
Technical Reports	4
Conference Proceedings	2
Presentations − Abstracts	17
Posters	2
Grand Total	**70**

TEACHING EXPERIENCE

Instructor	**Department of Earth Sciences, Sapienza University of Rome, Italy**
Fall 2022, Winter 2023	Data Analytics for Earth Sciences

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:
- Italian journal of engineering geology and environment (IJEGE): `https://rosa.uniroma1.it/rosa02/engineering_geology_environment`
- Ground Deformation Monitoring via Remote Sensing Time Series Data in Land (MDPI): `https://www.mdpi.com/journal/land/special_issues/2A61OI7856`
- Artificial Intelligence and Sustainability in Sustainability (MDPI): `www.mdpi.com/journal/sustainability/special_issues/sustai_artificalintelligence`
- Advances in Time Series Analysis in Sensors (MDPI): `www.mdpi.com/journal/sensors/special_issues/A_TSA`

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`

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)

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