

Farid Cheraghi's Curriculum Vitae

Assistant Professor of GIS

Gmail, UI email, UT email, UI Homepage, Google Scholar, Researchgate, Github, StackOverflow

Address: Room 20, Building 1, Department of Civil Engineering, University of Isfahan, Iran

Education and Academic Research Experience

- Mar2013-Mar2018, Ph.D., Research Assistant, Remote sensing and GIS, University of Tehran, Iran. I ranked 2 among 96 applicants in PhD university entrance exam in Civil-Surveying-GIS group. I was awarded a grant from the Iranian Ministry of Science, Research and Technology (MSRT) to conduct part of my PhD research as a visitor at university of Maryland College Park USA between September 26, 2016 and July 1, 2017.
- Sep2009-Mar2012, M.Sc., Research Assistant, Civil Engineering-Geospatial Information System, Faculty of Engineering, University of Tehran, Iran. I ranked 7th among 1350 (top 0.5%) applicants in the national MSc university entrance exam in civil-surveying major.
- Sep2005-Aug2009, B.Sc., Civil Engineering-Surveying, Faculty of Engineering, University of Tehran, Iran. Thesis title: Terrestrial LIDAR point-cloud data processing. I ranked 4194th among 329828 applicants (top 1%) in the national BSc university entrance exam in math and physics group.
- Sep2004-Aug2005, High School diploma, Math and Physics, Shohadaye Kargar High School, Tehran, Iran.

Publications

Timothy Barrey, Eliezer Gurarie, Farid Cheraghi, Ilpo Kajola, and William F. Fagan. Does dispersal makes the heart grow bolder? variation in habitat selection across wolf life history. *Journal of Animal Behavior*, 166:219–231, August 2020. ISSN 0003-3472. URL <https://doi.org/10.1016/j.anbehav.2020.06.015>.

Farid Cheraghi, Mahmoud Reza Delavar, Farshad Amiraslani, Kazem Alavipanah, Eliezer Gurarie, Stephane Ostrowski, Luke Hunter, Houman Jowkar, and William F. Fagan. Inter-dependent movements of *Acinonyx jubatus venaticus* and *Panthera pardus saxicolor* in a desert environment (mammalia: Felidae). *Zoology in the Middle East*, 65(4):283–292, June 2019. ISSN 0939-7140. URL <https://doi.org/10.1080/09397140.2019.1632538>.

Faridedin Cheraghi. ESRI association with open source: Is it free too? In Naveenchandra N. Srivastava, editor, *Emerging Trends in Open Source Geographic Information Systems*, chapter 4, pages 73–96. IGI Global, 2018a. ISBN 9781522550396. URL <http://doi.org/10.4018/978-1-5225-5039-6.ch004>.

Faridedin Cheraghi, Mahmoud Reza Delavar, Farshad Amiraslani, Seyed Kazem Alavipanah, Eliezer Gurarie, and William F. Fagan. Statistical analysis of Asiatic cheetah movement and its spatio-temporal drivers. *Journal of Arid Environments*, 151:141–145, April 2018a. ISSN 0140-1963. URL <https://doi.org/10.1016/j.jaridenv.2017.12.003>.

Eliezer Gurarie and Farid Cheraghi. *marcher: Migration and Range Change Estimation in R*, 2017. URL <https://cran.r-project.org/package=marcher>. R package version 0.0-2.

Farshad Hakimpour, Farid Cheraghi, and Jamshid Maleki. An evaluation of data models and algorithms in moving object databases (in Persian). *Journal of Geomatics Science And Technology*, 3(2):27–41, 2013. ISSN 2322-102X. URL <http://jgst.issge.ir/article-1-28-fa.html>.

Faridedin Cheraghi and Mohammad Ali Rajabi. A Bluetooth-Based indoor LBS system. In Maria Antonia Brovelli, Suzana Dragicevic, Songnian Li, and Bert Veenendaal, editors, *WebMGS 2010: 1st International Workshop on Pervasive Web Mapping, Geoprocessing and Services*, Como, Italy, August 2011. ISPRS WG IV. URL <https://www.isprs.org/proceedings/XXXVIII/4-W13/>.

Farid Cheraghi, Abbas Abedini, and Mehdi Khaki. Spatio-temporal road accident registration and hazardous location identification (in Persian). *Geospatial Engineering Journal*, 2(1):35–, 2011. ISSN 2228-5628.

Farid Cheraghi, Mahmoud Reza Delavar, Farshad Amiraslani, and Seyed Kazem Alavipanah. Movement mining of animals' behavior and interaction: Asiatic cheetah and Persian leopard in Bafq protected area (in Persian). *Journal of Environmental Studies*, 44(2):331–344, 2018b. ISSN 1025-8620. URL <http://doi.org/10.22059/jes.2018.257902.1007663>.

Farid Cheraghi. *Movement Mining Using Ambient Intelligence (in Persian)*. PhD thesis, University of Tehran, 2018b. URL <https://ganj.irandoc.ac.ir/#/articles/0575b0e8b387b735e2501a92a4fda987>.

Eliezer Gurarie and Farid Cheraghi. *smoove: Simulation and Estimation of Correlated Velocity Movement (CVM) Models*, 2019. URL <https://github.com/EliGurarie/smoove>. R package version 0.1-0.

Farid Cheraghi, Farshad Hakimpour, Abbas Abedini, and Jamshid Maleki. Temporal routing by transportation vehicles trajectory in moving objects database (in Persian). *Geospatial Engineering Journal*, 3(1):9–, 2012. ISSN 2228-5628.

Farid Cheraghi. An evaluation of moving object databases (in Persian). Master's thesis, University of Tehran, 2011. URL <http://dx.doi.org/10.13140/RG.2.2.30227.78881>.

Farid Cheraghi, Mahmoud Reza Delavar, Farshad Amiraslani, and Kazem Alavipanah. Asiatic cheetah behavioral estimation from telemetry data using bayesian statistics. In *Imaging and Geospatial Technology Forum IGTF 2017 ASPRS Conference Proceedings*, Baltimore, Maryland, USA, July 2017. American Society for Photogrammetry and Remote Sensing (ASPRS).

Jamshid Maleki, Farshad Hakimpour, Gholamreza Fallahi, and Faridedin Cheraghi. Framework for composition and execution of OGC web services (in persian). *Geospatial Engineering Journal*, 2(4): 1–, 2011. ISSN 2228-5628.

Students

The list follows student name, student level, my role, start date, end date and topic pattern ordered by recency:

- Ali Sadeghian, Msc in GIS, co-supervisor, 1403/04/1, cont., land administration and cadastre
- Erfan Hoseini, Bsc in Geomatics, mentor, 1402/07/1, cont., spatial database systems
- Mahsa Abazari, Bsc in Geomatics, mentor, 1402/07/1, cont., cadastre
- Seyed Hossein Jamalzadeh, Bsc in Geomatics, mentor, 1402/07/1, cont., free and open-source software for GIS
- Hossein Ghiasvand Nanji, PhD in GIS, co-supervisor, 1401/12/1, cont., computational landscape archaeology

Teaching

- Spring 2023 & 2024, Spatial Data Analysis for graduate students in GIS engineering, University of Isfahan, Iran
- Fall 2022 & 2023, The Design and Implementation of Enterprise GIS for graduate students in GIS engineering, University of Isfahan, Iran
- Fall 2022, Spring 2023 & Spring 2024, Geospatial Information Systems (GIS) lab for undergrad students in Geomatics engineering, University of Isfahan, Iran
- Fall 2022, Spring 2023 & Spring 2024, Geospatial Information Systems (GIS) for undergrad students in Geomatics engineering, University of Isfahan, Iran
- Spring 2022, Cadastre II for undergrad students in Geomatics engineering, University of Isfahan, Iran

- Spring 2022, Apartment subdivision workshop for undergrad students in Geomatics engineering, University of Isfahan, Iran
- Fall 2019, Introductory R workshop instructor for MSc and PhD students in GIS, University of Tehran, Iran
- Spring 2019, Temporal GIS for PhD students in GIS, University of Tehran, Iran
- Fall 2018, Computational geometry for MSc students in GIS, University of Tehran, Iran
- Fall 2018, Introductory R workshop instructor for MSc and PhD students in GIS, University of Tehran, Iran
- Spring 2018, Advanced Remote Sensing for Environmental Analyses Instructor, College of Environment, Karaj, Iran
- Fall 2017, Digital Terrain Modeling (DTM) Teaching Assistant, University of Tehran, Iran
- Spring 2017, Advanced R Programming Guest Lecturer, University of Maryland, USA
- Summer 2011, Oracle Spatial Instructor, National Geographic Organization, Iran
- Spring 2011, Oracle Spatial Instructor, Tehran Municipality Information and Computer Technology Organization, Iran
- Fall 2010, LiDar 3D Point Cloud Processing Teaching Assistant, University of Tehran, Iran

Work Experience

Each item follows the "date, role, place" pattern.

- Oct2022-Now, Assistant professor of GIS, University of Isfahan
- May2013-Sep2016, Jul2017-Now, Chartered surveying engineer, Tehran Construction Engineering Organization (TCEO)
- Mar2018-Oct2022, President and geospatial data scientist, Asan Rahyab Aria (ASRA) Co Ltd
- May2017-Jul2017, Research Assistant, Department of Biology, University of Maryland College Park
- Jan2017-May2017, Research assistant, Department of Biology, University of Maryland College Park
- Mar2014-Sep2016, President, ASRA Co Ltd
- Apr2012-Mar2014, Smallworld GIS (Magik/C) programmer, Rassam Co Ltd
- Nov2010-Mar2012, Oracle Spatial (PLSQL/SQL/Javascript) Programmer, NRS Co Ltd
- Nov2009-Nov2010, 3D point-cloud data collection and processing using RIEGL terrestrial laser scanner (LiDAR), Omran Asre Sepid (OAS) Co Ltd

Certification

- Sep2016, [R Programming](#) by Prof. Roger Peng at Johns Hopkins University on Coursera, an online non-credit course
- Aug2016, [Statistical Learning](#) by Prof. Trevor Hastie at Stanford University on Stanford Online, an online non-credit course
- Apr2016, [Machine Learning](#) by Prof. Andrew NG at Stanford University on Coursera, an online non-credit course
- Mar2014, [ArcGIS Desktop Developer Associate 10.1](#). This was an in-person proctored examination and the certificate could be verified by searching my name at the [ESRI directory service](#) website.

Code

- [CACPL](#) author, 2017-07, Conservation of Asiatic Cheetah and Persian Leopard, R scripts to reproduce the results of my PhD thesis research and the corresponding papers,
- [ML-Course](#) author, 2016-04, R version of the programming exercises' of Prof. Andrew NG machine learning (ML) Coursera course, with the option to directly submit the solutions to Coursera website (stars > 160),
- [smoove](#) contributor, 2017-05, Simulation and Estimation of Correlated Velocity Movement (CVM) Models
- [marcher](#) contributor, 2017-04, Migration and Range Change Estimation in R, R package contributor
- Author of miscellaneous modules and extensions for ArcGIS, Smallworld GIS, Oracle and QGIS in C#, Python, Magik, C++, and R

Computer Skills

Free software toolbox: Arch Linux, Bash, R, Python, C/C++, git, PostgreSQL, SQLite, L^AT_EX2_ε, LibreOffice, Markdown, Vim, QGIS, Grass GIS, QCAD

Proprietary software toolbox: MS Windows, C#.NET, ESRI ArcGIS, ArcObjects, MATLAB, Oracle DBMS, GE Smallword GIS, AutoCAD, MS Office, etc.

Voluntary Experience

[GIS StackExchange](#) (reputation > 8.5k)

Language

- English (proficient): TOEFL iBT (Oct 22, 2011) Overall: 84/120
- Persian (native)