

## Farid Cheraghi's Curriculum Vitae

Assistant Professor of GIS

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[Gmail](#), [UI email](#), [UT email](#), [UI Homepage](#), [Google Scholar](#), [ResearchGate](#)

Room 20, Civil Engineering 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, Faculty of Geography, University of Tehran, Iran
- Sep2016-July2017, Visiting Researcher, Department of Biology, University of Maryland, College Park, Maryland, USA
- Sep2009-Mar2012, M.Sc., Research Assistant, Civil-GIS Eng., Faculty of Eng., University of Tehran, Iran
- Sep2005-Aug2009, B.Sc., Civil-Surveying Eng., Faculty of Eng., University of Tehran, Iran
- Sep04-Aug05, 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, my role, start date(-end date) and topic pattern ordered by recency:

- Phd students
  - Hossein Ghiasvand Nanji, co-supervisor, since 1401/12/1, Computational Landscape Archaeology
- Master students
  - Ali Sadeghian, Msc in GIS, co-supervisor, since 1403/04/1, Land Valuation
- Undergrad students
  - My role has been the Project course supervisor:
    - Erfan Hoseini, Bsc in Geomatics, 1402/07/1-1403/03/30, Spatial Database Systems
    - Mahsa Abazari, Bsc in Geomatics, 1402/07/1-1403/03/30, Cadastre
    - Seyed Hossein Jamalzadeh, Bsc in Geomatics, 1402/07/1-1403/03/30, Free and Open-source Software for GIS

## 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

## University Executive Work

- July 2023-Now, Geomatics Eng. department representative in Civil Eng. faculty Internationalization Scientific Cooperation (ISC) committee:
  - I coordinated my colleagues to translate the curriculum of our one undergraduate and four graduate programs into English

## Work Experience

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

- Oct2022-Now, Assistant Professor of GIS, University of Isfahan, Iran
- May2013-Sep2016, Jul2017-Now, Chartered Surveying Engineer, Tehran Construction Engineering Organization (TCEO), Iran
- Mar2018-Oct2022, President and Geospatial Data Scientist, Asan Rahyab Aria (ASRA) Co Ltd, Iran
- May2017-Jul2017, Research Assistant, Department of Biology, University of Maryland College Park, USA
- Jan2017-May2017, Research Assistant, Department of Biology, University of Maryland College Park, USA
- Mar2014-Sep2016, President, ASRA Co Ltd, Iran
- Apr2012-Mar2014, Smallworld GIS (Magik/C) Developer, Rassam Co Ltd, Iran
- Nov2010-Mar2012, Oracle Spatial (PLSQL/SQL/Javascript) Developer, NRS Co Ltd, Iran
- Nov2009-Nov2010, 3D Point-Cloud Data Collection and Processing Using RIEGL Terrestrial Laser Scanner (LiDAR), Omran Asre Sepid (OAS) Co Ltd, Iran

## 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, R, Python, C/C++, git, PostgreSQL, SQLite,  $\text{\LaTeX}$ 2e, LibreOffice, Markdown, Vim, QGIS, ...

**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)