Darius A. **Görgen**

Remote Sensing Analyst · M.Sc. Geography · B.A. Political Sciences

Darius2402@web.de | www.dariusgoergen.com | goergen95 | darius-goergen

Education

M.Sc. in Physical Geography

Marburg, Germany

University of Marburg

Oct. 2018 - March 2021

- Thesis: "Predicting Violent Conflict in Africa - Leveraging Open Geodata and Deep Learning for Spatio-Temporal Event Detection".
- Training of a CNN-LSTM based on socio-economic and environmental variables to predict the occourence of violent conflict.
- Major in Environmental Informatics, Climatology and Hydrogeography.
- Evaluation of the thesis: *0.7*

B.Sc. in Geography

Marburg, Germany

University of Marburg

Oct. 2014 - Feb. 2018

- Thesis: "Comparison of machine learning algorithms to monitor land use activity in the Ili-Balkhash-Basin".
- Development of R routines to assess agricultural activity based on MODIS data sets and different machine learning algorithms.
- Evaluation of the thesis: *1.0*

B.A. in Political Sciences of the MENA Region

Marburg, Germany

University of Marburg

Oct. 2014 - Sep. 2018

- Thesis: "Framing public participation in water management in Jordan".
- Based on qualitative interviews with state officials in the water and agricultural sector.
- Evaluation of the thesis: *0.7*

Abitur

Bad Wildungen, Germany

Gustav-Stresemann Gymnasium

Oct. 2005 - Jun. 2013

- Grade: *1.4*

Skills

Back-end Tools	PostgreSQL, Docker, GitHub Actions
Front-end Tools	R Shiny, R Markdown, bookdown, workflowr
Programming	R, Python, Bash
Languages	German, English, French, Spanish, Turkish, Arab

Working Experience

MapTailor Geospatial Consulting GbR, Dr. Fabian Löw

Bonn, Germany

Remote Sensing Analyst

Jan. 2020 - Dec. 2021

- Consultancy for project evaluation in the international cooperation sector.
- Development of several R packages to support planning and evaluation of deforestation/afforestation projects.
- Agil software development environment in a multi-stakeholder process.

Peace Research Institute Frankfurt (PRIF), Member of the Leibniz Association, Dr. Irene Weipert-Fenner

Frankfurt, Germany

Student Assistant

Oct. 2019 - Jan. 2020

- Support of ongoing research on economic protests in Tunisia and Egypt.
- Worked on a project on Natural Language Processing of news articles for topic identification.

Department of Climatology and Environmental Modelling, Prof. Dr. Jörg Bendix

Marburg, Germany

Student Assistant

May. 2015 - Dec. 2019

- Support of an doctoral researcher working on the global identification of a new type of tropical lowland cloud forest.
- Development of R and Python routines to process large amounts of satellite data.

Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Dr. Katja Schmitt

Eschborn, Germany

External Consultant

Nov. 2018 - Dec. 2018

- Evaluation report on GIZ activites at the intersection of the water and agricultural sector.
- Qualitative interviews with project staff worldwide.
- Critical reflection of lessons-learned and recommendations for the strategic orientation of the water sector

Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Dr. Katja Schmitt

Eschborn, Germany

Intern for Sustainable Water Policy

Mar. 2018 - Jun. 2018

- Support in drafting the BMZ strategy paper on water, flight and migration.
- Quantitative analysis of numbers on migration and water risk on the African continent.
- Evaluation of project proposal in the agricultural sector from a water sector's perspective.

Department of Soil and Hydrogeography, Prof. Dr. Christian Opp

Marburg, Germany

Student Assistant

Oct. 2016 - Dec. 2016

- Support of ongoing research projects.
- Conduction of tutorials for fellow students.
- Support in scientific writing for fellow students.

Workshops & Field Work

Workshop by the Carl Friedrich von Weizsäcker-Zentrum für Naturwissenschaft und Friedensforschung (ZNF), Dr. Gesine Schütte

Remote

Analysis of water use efficency in dry-land agriculture

Sep. 2020 - Nov. 2020

- Trend analysis of precipitation patterns in Southern Tunisia based on Remote Sensing.
- Estimation of water use efficency in agricultural systems based on FAO WaPOR data.
- Click here or visit `https://github.com/goergen95/clca`

Applied Radar Remote Sensing, University of Jena, Robert Eckardt

Jena, Germany

Workshop on SAR Remote Sensing in Cooperation with the DLR

Sep. 2019

- Introduction to applications of SAR remote sensing in science and practice.

Field Work for the thesis in the B.Sc. Geography, Prof. Dr. Christian Opp

Almaty, Kazakhstan

Al-Farabi Kazakh National University, Almaty

Mar. 2017 - Apr. 2017

- Independent organization of field trips to collect ground truth points in agricultural zones around Almaty, Kazakhstan.

Showcase

Predicting violent conflict in Africa

Marburg, Germany

Interactive Website for the results of the Master Thesis

Mar. 2021

- Deep Learning based event detection based on open geodata.
- CNN-LSTM architechture implemented in Kers/tensorflow.
- Analysis reveals statistically significant higher performance with the inclusion of environmental variables.
- Click here or visit the project's website at `https://goergen95.github.io/thesis-predicting-conflict`

MAPME - Maps for planning, monitoring and evaluation in development cooperation

Frankfurt, Germany

OpenSource project for MapTailor and KfW

Dec. 2020

- Reproducible analysis of Remote Sensing data for forest managment in development cooperation.
- Development of a R Shiny app to inform decision makers on deforestation in Latin America.
- Click here or visit the project's website at `https://mapme-initiative.org`
- Click here or visit the R Shiny app at `https://mapme-schutzgebiete.test.sixmarkets.net`

Using machine learning for automatic classification of spectral samples to detect microplastic particles

Marburg, Germany

Seminar Work at the Department of Soil and Hydrogeography, Prof. Dr. Peter Chifflard

Sep. 2019

- Development of R routines to preprocess and analyse spectral data from environmental samples.
- Training of Random Forest, Support-Vector-Machine and Convolutional-Neural-Network models.
- Reproducible documentation of the workflow and presentation of the results on a website.
- Click here or visit `https://goergen95.github.io/polymeRID`

Structural analysis of a forest landscape based on remote sensing

Marburg, Germany

Seminar Work at the Department of Environmental Informatics, Prof. Dr. Thomas Nauss

Oct. 2018

- Tree species classification and structural stand analysis based on RGB imagery and LiDAR data.
- Reproducible documentation of the workflow and presentation of the results on a website.
- Click here or visit `https://goergen95.github.io/mof_caldern/`