

# Ivan Palmegiani, MSc

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Berlin - Germany

Phone number available on request



## Profile

Scientist with strong analytical mindset and very good organization skills. Advanced technical capabilities developed over 5+ years working experience, and intensive training. Excellent communication skills. Team worker, also able to take charge of tasks individually. Highly motivated and positive towards challenges. Solution oriented, and careful about details. Constructive critical thinker. Curious and eager to learn.

## Expertise

R coding | Python programming | Relational (geo)databases (SQL and PostgreSQL) | Geographic Information Systems (GIS) | Exploratory data analyses (EDA) | Hypothesis testing | Inferential and predictive modelling | Machine Learning (ML) | Time series analyses and forecast | Data visualization | Data reporting | Research

## Professional Experience

**Freelance Data Scientist | Quantitative Analyst**, June 2018 - Present

[IZW - Leibniz Institute for Zoo and Wildlife Research](#)

**PhD Candidate**, May 2014 - Jun. 2018 | **Research Assistant**, Apr. 2013 - Sept. 2013

Main goal: Investigating the mating system of freeranging cheetahs in central Namibia.

- Collected and analyzed long time series of geo-referenced and telemetry data with Kernel Density Estimation (KDE), Movement-based KDE (MKDE), Brownian Bridges Movement Models (BBMM), Local Convex Hulls (LoCoH), K-nearest neighbors algorithms (k-NN), Random-walks.
- Explored data and modelled environmental dynamics with linear and nonlinear regression models.
- Collected and analyzed presence-absence data via camera-trap surveys. Designed and maintained relational (geo)databases in PostgreSQL.
- Provided insights to stakeholders, team members, and scientific audiences, data reporting and visualization. Two scientific papers are on their way.
- Coordinated data collection in the field, supervised volunteers.
- Organized scientific symposia.

[CIBIO - Research Center in Biodiversity and Genetic Resources](#)

**Research Assistant**, Dec. 2012 - Feb. 2013 | **Research Technician**, Feb. 2012 - Nov. 2012

Main goal: Investigate the spatial ecology of freeranging wolves, and predator-prey relationship in Peneda-Gerês National Park (PT).

- Collected and analyzed GPS telemetry and geo-referenced environmental data.
- Explored and modelled presence-absence data with generalized linear models (GLM).

- Designed and maintained relational geo-databases.
- Provided insights to stakeholders, team members, and scientific audiences, data reporting and visualization.

## Department of Zoology and Evolutionary Genetics, University of Sassari

### Research Technician, Nov. 2010 - Nov. 2011

Main goal: Investigate spatial distribution, reproductive success, and predator-prey relationship of freeranging wolves in Arezzo Province - Tuscany (IT).

- Collected geo-referenced environmental data.
- Collected and analyzed bio-acoustic data.
- Collected and analyzed presence-absence data via camera-trap surveys.

**Teaching experience:** lecturer on wildlife survey and monitoring methods.

## Education

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### Master of Science (MSc), Jul. 2010

*Environmental science and natural resources management*, University of Sassari. Grade: 110/110 *cum Laude*  
Environmental modelling, statistical inference, advanced statistical theory, zoocenosis and wildlife conservation, wildlife management, genetics, plant conservation, environmental economics, systems ecology, landscape ecology, regional geology, sedimentology.

### Bachelor of Science (BSc), Feb. 2008

*Environmental Science*, University of Perugia. Grade: 107/110

Principles of biology, geology and ecology. The course of study covered a wide range of subjects to provide the students with the solid background required to undertake ecological and environmental studies.

## Further training

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### Data Science Bootcamp, Aug. 2019 - Nov. 2019

*Business Trends Academy*

Data protection and ethical matters | Linear and nonlinear regression | A/B testing | Hypothesis testing | Data visualization in Tableau | Object oriented programming (OOP) | Python modules and functions | Pandas and NumPy | Multiprocessing and multithreading | RESTful API | Webscraping | Neural Networks and Machine Learning techniques | Keras, Anaconda and TensorFlow.

### Movement Ecology Summer School, Aug. 2015

*Population Ecology Research Group, University of Zurich*

GIS and remote sensing in R | Characterization of movement trajectories | Home range analysis | Habitat selection modelling | Integration of data from alternative sensors and future perspectives.

### Next Generation Data Management in Movement Ecology, Jul. 2015

*IRSAE, International Research School in Applied Ecology - FEM, Edmund Mach Foundation*

Spatial database management in PostgreSQL/PostGIS | Movement data analysis in R

### Multivariate Data Analysis for Ecology and Evolution in R, Nov. 2012

*CIBIO - Research Center in Biodiversity and Genetic Resources*

Explanatory methods (PCA, PcoA, MDS, clustering) | Inferential methods (Randomization, bootstrap, jackknife, Monte Carlo statistics, multivariate, GLM, PLS, CanCor, Mantel Test) | Evolutionary and ecological Non-Independence (PGLS, PIC, rates of change, spatial autocorrelation, spatial GLS) | Model selection (i.e. Hypothesis testing vs information criteria) | Analysis of dispersion (i.e. Convex hulls area/volume, nearest neighbour, centroid

size, eccentricity).

## **Biostat 2011 – Statistic inference in Biology and Human Sciences**, Jun. 2011

*UniASTISS, Department of Statistics - Purdue University, Department of Economy - UniMORE, Italian Institute for Philosophical Studies, Department of Statistics - Bologna University, Department of Human and Animal Biology - University of Turin, Department of Social Research - University of Eastern Piedmont, Asti Association for Scientific and Technological Development*

Linear and nonlinear regression models | Non-parametric regression model | Principal components analysis | Factor analysis | Correspondence analysis | Cluster analysis | R coding.

## Languages

English (IELTS certification level C1) • German (TELC certification level B1) • Italian (mother tongue) • Spanish (fluent) • Portuguese (fluent)

## Hobbies and interests

Outdoor sports and activities such as climbing, bouldering, hiking, biking, canoeing, camping • Indoor gardening • Urban farming • DIY and Handicraft • Music and Arts • Cooking

## References

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