Mauro Lepore

Software engineer, data science support and trainer

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I'm most experienced in software development, teaching/mentoring and research. I implement software solutions to help researchers work in an efficient, transparent, and reproducible way. I created and maintain a number of R packages now hosted on GitHub and CRAN. I often contribute as a developer or teacher to popular open software projects or communities (https://maurolepore.github.io/).

EXPERIENCE

Software engineer, data science support and trainer

ForestGEO
2017-08 - present
National Museum of Natural History, Smithsonian Institution, Washington DC, USA

My official title is "IT Specialist - R-package developer". I implement software solutions to help researchers work in an efficient, transparent, and reproducible way. I develop new software (R packages) and update a legacy code base. I also teach data science skills (e.g. R, Git, GitHub) to researchers and students, and help them troubleshoot, both remotely and in person.

Data science instructor

The Carpentries
2018 - present
Multiple locations

As a certified instructor of The Carpentries, I teach and help teach foundational coding and data science skills to researchers (e.g. Excel, OpenRefine, SQL, R).

Postdoctoral research fellow

O'Dea Lab: Change and Variation in Tropical Seas
2016-02 to 2017-06
Smithsonian Tropical Research Institute, Panama City, Panama

Researcher on a project looking at changes in coral reefs through time. Also supervised two interns (one undergraduate and one postgraduate student).

Teaching university students

2012-04 - 2016-12

Affiliations:

- Smithsonian Tropical Research Institute (O'Dea Lab)
- The University of Queensland

Locations:

- Smithsonian Tropical Research Institute, Bocas del Toro Research Station, Panama
- Moreton Bay Research Station, North Stradbroke Island, Australia
- Heron Island Research Station, Heron Island, Australia

Field courses under two weeks:

- Texas A&M University, GEOS 405
- Stanford University (twice)
- The University of Queensland, MARS2005
- University of California

Semester long courses:

- The University of Queensland, MARS2014 (twice)

Responsibilities:

- Lecturer
- Mentor for research projects
- Boating and snorkeling safety
- Logistical support in Spanish and English
- Marking assignments
- Supply field and lab gear
- Driving students

Teaching high school students

The University of Queensland
2011-04 - 2015-06

Locations:

- Moreton Bay Research Station, North Stradbroke Island, Australia
- St Lucia, Brisbane, Australia

Lecturer and demonstrator in the field and lab (groups up to 60 students). Responsible for liaising with school teachers and coordinating less experienced tutors.

Teaching general public

Museo Argentino de Ciencias Naturales, Argentina
2004-04 - 2004-08 and 2003-07 - 2003-12
Parque Centenario, Buenos Aires, Argentina

Responsible for explaining the exhibition at the national museum of natural history in Buenos Aires, Argentina, to engage the general public, from kids to adults, and primary school groups.

EDUCATION

The University of Queensland, Australia

PhD, Ecology, Environmental Sciences, Geochemistry
2011-2015
School of Biological Sciences, ARC Center of Excellence for Coral Reef Studies

Thesis: “Long term dynamics of coral reefs in the inshore southern Great Barrier Reef”.

I examined three issues:

1. The potential of a reef system to constitute a refuge for coral reefs from global warming.
2. The accretion rate of the reef flat and reef slope environment through time.
3. Changes in coral community structure through time, and the mechanisms of community assembly.

Universidad de Buenos Aires, Argentina

Licentiate degree, Biological Sciences, Marine Ecology
1999-2008
Faculty of Natural Sciences

Thesis: "Estudio del crecimiento de la almeja amarilla Argentina Mesodesma mactroides por marcaje fluorescente in situ y comparación con el método de análisis de distribuciones de frecuencias de tallas".

I compared a novel and traditional method to study the growth rate of a clam.