Sacramento, CA

(530) 761-6864

jorgearroyo0731@gmail.com

<https://jarroyoe.github.io>

Jorge Arroyo-Esquivel, PhD

#

# Profile

Data scientist and quantitative ecologist with over 9 years of experience in research of dynamical modeling of time series and forecasting tools. Specialized in environmental resource management and ecosystems consulting with stakeholders and clients developing data-driven models to solve real life problems. Experienced communicating complex scientific concepts to non-technical audiences. Passionate scientist capable of working independently and in multidisciplinary teams.

# Experience

## California Department Of Fish And Wildlife *— Modeling Unit Specialist*

February 2024 - Present

* Led and developed data-driven modeling projects to analyze the impacts of water management for the development of state water permits.
* Co-led and managed a $1.5M research grant-funded interinstitutional research team, developing cutting-edge biological data science algorithms.

## Carnegie Institution for Science *— Postdoctoral Fellow in Ecoinformatics*

January 2023 - January 2024

* Led and developed 3 research projects focused on ecological data science for the management of endangered marine species.
* Funded AI tool research for resilience analysis of natural ecosystems through successfully obtaining more than $100,000 in research grants.

## University of California Davis *— Researcher*

January 2019 - December 2022

* Collaborated with stakeholders to develop spatial models for kelp forest management and enhance blue carbon recovery strategies.
* Aided in raising $5M in research grants to support the development of kelp forest restoration strategies in northern California.
* Led a team of junior researchers in the research and development of effective natural resource management models.

## Western Union *— Sr Specialist Reporting and Analysis*

January 2018 - August 2018

* Implemented mentoring and leadership strategies to guide analysts in their development of data science skills, leading to the successful completion of three projects across various departments.
* Consulted on automation of reporting systems, resulting in significant time savings of approximately 120 hours per week.
* Led a project that enhanced forecasting systems, resulting in annual savings of around $1M USD.

## Universidad De Costa Rica *— Research Assistant*

April 2014 - December 2017

* Optimized biological control methods in agriculture through the development of theory-based models.
* Developed spatial data-based models and optimization techniques to solve problems in public infrastructure and agriculture.

# Education

## University of California, Davis *— PhD*

September 2018 - December 2022

Applied Mathematics

## Universidad de Costa Rica *— Bachelor of Science*

March 2013 - December 2017

Mathematics

# Skills

* R Programming
* Julia Programming
* Python Programming
* Machine Learning with Pytorch and Lux.jl
* Problem-Solving
* Teamwork and Collaboration