Exponent®
Engineering & Scientific Consulting

Steve Scherrer, Ph.D.

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Professional Profile

Dr. Steve Scherrer is an expert in helping clients get the most from their data. Whether it be scoping solutions, engineering data pipeline infrastructure, developing KPI metrics, data analysis with statistical and machine learning methodologies, or developing dashboards and other visualizations to provide stake holders with actionable insights, Dr. Scherrer can help maximize the value of your data.

Steve has lead teams responsible for data collection, quality control, and delivery of datasets for training AI models for next generation hardware features. He has expertise bringing together a variety of data sources, including using public API and database resources, computer vision models, and web scraping, to building complex data systems to train models and provide stakeholders with real time updates and forecasts. At Exponent, he has applied these skills to build robust systems providing utility companies with real time alerts and service information.

While a Data Engineer with Teksystems, Steve analyzed the cost attribution and resource utilization of advertising models. Collaborating with internal stakeholders, his work played a crucial role in enhancing ROI decision-making and long-term planning by building scheduled ETL pipelines and dashboards to monitor data governance initiatives.

Dr. Scherrer boasts a diverse and impressive background encompassing roles in data science, engineering, and academia. He received his degree from the University of Hawai`i where he applied his skills to sustainable decision-making for Hawaii's fisheries. Here his analytical prowess shone as they worked with telemetry data from fish and fishers to evaluate existing management measures using Python, R and GIS. He also developed libraries and packages for optimizing the deployment of sparse sensor arrays.

Academic Credentials & Professional Honors

Ph.D., Marine Biology, University of Hawaii, Manoa, 2019

B.A., Communication, University of California, Santa Barbara, 2008

Prior Experience

Data Engineer, Facebook (Contracted through Teksystems), 2021-2021

Data Science Fellow, Insight Data Science, 2020

Graduate Research Assistant, University of Hawaii Oceanography Department, 2013-2019

Assistant Winemaker, Kathryn Kennedy Winery, 2010-2013

General Assistant (Antarctica), Raytheon Polar Services, 2009-2010

Patents

Carlisle, Aaron B., et al. "Integrating multiple chemical tracers to elucidate the diet and habitat of Cookiecutter Sharks." Scientific reports 11.1 (2021): 1-16.

Scherrer, Stephen R., et al. "Estimation of growth parameters integrating tag-recapture, length-frequency, and direct aging data using likelihood and Bayesian methods for the tropical deepwater snapper Pristipomoides filamentosus in Hawaii." Fisheries Research 233 (2021): 105753.

Scherrer, Stephen R., and Kevin C. Weng. "Evaluating movements of opakapaka (Pristipomoides filamentosus) relative to a restricted fishing area by using acoustic telemetry and a depth-constrained estimator of linear home ranges." Fishery Bulletin 118.3 (2020): 209.

Filous, Alexander, et al. "Movement patterns of reef predators in a small isolated marine protected area with implications for resource management." Marine Biology 164.1 (2017): 1-16.

Scherrer, Stephen R., et al. "Depth-and range-dependent variation in the performance of aquatic telemetry systems: understanding and predicting the susceptibility of acoustic tag–receiver pairs to close proximity detection interference." PeerJ 6 (2018): e4249.

Publications

Presentations

GOING OFF THE DEEP END: PERILS OF ACOUSTIC TELEMETRY BEYOND SCUBA DEPTHS, Species on the Move Conference - July 2019

EVALUATING THE SCALE OF HAWAI`I'S BOTTOMFISH RESTRICTED FISHING AREAS FOR PROTECTING PRISTIPOMOIDES FILAMENTOSUS, Univerisity of Hawai`i Conference of Biological Oceanography Graduate Students - April 2019

AN INTEGRATED DATA APPROACH TO QUANTIFYING GROWTH IN PRISTIPOMOIDES FILAMENTOSUS, University of Hawaii Conference of Biological Oceanography Graduate Students - April 2018

SPATIAL ECOLOGY OF COMMERCIAL AND 'OF CONCERN' FISHES: THE OPAKAPAKA AND HUMPHEAD WRASSE, NOAA IRC Science Seminar series - January 2018

PRELIMINARY RESULTS AND CHALLENGES INVESTIGATING THE SPATIAL USE OF A RESTRICTED FISHING AREA BY PRISTIPOMOIDES FILAMENTOSUS, University of Hawaii Conference of Biological Oceanography Graduate Students - March 2017

COMPUTER ASSISTED OPTIMIZATION OF A DEEP-WATER TRACKING ARRAY FOR HAWAIIAN BOTTOMFISH, University of Hawaii Conference of Biological Oceanography Graduate Students - March 2016

BOTTOMFISH TRACKING - PRELIMINARY RESULTS - PHASE I, University of Hawaii Conference of Biological Oceanography Graduate Student - March 2015

BOTTOMFISH TRACKING WITH RESPECT TO THE BRFA MANAGEMENT SYSTEM, NOAA Bottomfish Coordination Workshop - February 2015