

Christina Holland

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DATA SCIENTIST

I am a tenacious problem solver and data scientist who looks for new ways to use data to improve the world around me. With a PhD in physical oceanography, I have an extensive background in modeling and large databases. As a former high school mathematics teacher I am able to convey complex concepts and results to both technical and non technical audiences.

SKILLS & TOOLS

Programming: Python, HTML, CSS, JavaScript, C, Fortran, Matlab
Analytics: Pandas, SQL, SKLearn, API, TensorFlow
Platforms: Github, Jupyter Labs, Google CoLab, Google Cloud Computing, Databricks, PySpark, StreamLit, R Studio, SQLite Studio
Visualization: Matplotlib, Seaborn

EXPERIENCE

General Assembly, Data Science Immersive Graduate, 02/2021-05/2021

Applied data analysis and data visualization skills in a 500-hour immersive course:

- Geocaching recommender app
 - Classification modeling with Logistic Regression, KNN, Decision Trees, Random Forest, Bagging, AdaBoost, and Support Vectors
 - Cosine Similarity analysis
 - Cluster analysis with KMeans and DBSCAN
 - Text analysis with vectorizers and VADER sentiment analysis
 - App deployment through StreamLit
- NYC EMS call volume predictor model and app
 - Collaborative project
 - Exploratory data analysis and visualization
 - Predictive modeling using Linear Regression, Random Forests, and Neural Networks
 - App deployment through StreamLit
- Reddit text analysis project and app
 - Text analysis with vectorizers
 - Classification modeling with Naive Bayesian, Logistic Regression, KNN, Decision Trees, Random Forest, and Support Vectors
 - App deployment through StreamLit

Marietta High School, 08/2012-11/2020

High School Math Teacher

- General education, gifted/accelerated, and special education co-taught and self-contained
- Taught 12 different courses ranging from 9th-12th grade
- In collaboration with teachers within my department
- Professional Learning Community chair for Accelerated Math I course
- Professional Learning Community co-chair for Algebra II course
- Repeated Presenter at GaDOE IDEAS conference

Akins High School, 07/2008-07/2012

High School Math Teacher

- Designed and facilitated multiple academic projects within a project-based learning academy
- General education and pre-AP
- Taught 3 different courses, 10th-11th grade
- In collaboration with teachers within my department and the New Tech academy

The University of Texas, Institute for Geophysics, 07/2004-07/2008

Research Scientist

- Data analysis and computer modeling of climate variability on interdecadal scales using long temperature records in ocean corals, and of small scale ocean turbulence
- In collaboration with scientists at UTIG and Texas A&M
- Using Matlab, Fortran, and C
- Co-author on 2 peer-reviewed publications
- Presented at American Geophysical Union Fall meetings and AGU Ocean Sciences

The University of South Florida, College of Marine Science, 07/1996-07/2004

Graduate Research Assistant

- Data analysis and computer modeling of ocean eddies, and of heat transports in the tropical Pacific on interannual timescales
- In collaboration with scientists at USF, University of Hawaii, and NASA-Goddard
- Using Matlab, Fortran, and C
- First author on 3 peer-reviewed publications
- Presented at American Geophysical Union Fall meetings and AGU Ocean Sciences

EMPLOYMENT HISTORY

Marietta High School, Math teacher, Marietta, GA, 08/2012-11/2020

Akins High School, Math teacher, Austin, TX, 07/2008-07/2012

The University of Texas, Institute for Geophysics, Research Scientist, Austin TX, 07/2004-07/2008

The University of South Florida, College of Marine Science, St. Petersburg, FL, Graduate Research Assistant, 07/1996-07/2004

The University of Hawaii, Honolulu, HI, Graduate Research Assistant, 08/1993-07/1996

EDUCATION

General Assembly, Data Science Immersive Graduate, 02/2021-05/2021

The University of South Florida, Ph.D. Marine Science, St. Petersburg, FL, 07/1996-07/2004

The University of Hawaii, Honolulu, HI, M.S. Physical Oceanography, 08/1993-07/1996

Eckerd College, St. Petersburg, FL, B.S. Physics and Mathematics, 08/1989-06/1993