MARCOS ORTIZ, PHD

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SUMMARY

I am a mathematician, researcher, scientist, and teacher. I love to explore technical questions and puzzles, and learn about new tools that can be applied to solving these problems. I have recently become particularly interested in developments in machine learning, and data science. I am currently seeking opportunities in these fields.

EDUCATION

PhD, Mathematics 2015
University of Iowa *Department of Mathematics*
Graduate Certificate in College Teaching 2014
University of Iowa *Graduate College*
Masters, Mathematics 2012
University of Iowa *Department of Mathematics*
B.Sc., Mathematics 2009
State University of New York at Buffalo *Department of Mathematics*
B.A., Psychology 2004
University of North Carolina at Wilmington *Department of Psychology*

EMPLOYMENT

Instructor of Mathematics 2018 – present
Colorado Mesa University, Grand Junction, CO
Visiting Assistant Professor 2015-2018
Grinnell College, Grinnell, IA

MACHINE LEARNING AND DATA SCIENCE

To help build my foundation in data science, I have completed several certifications:
Machine Learning Specialization July 2023
DeepLearning.AI & Stanford University via Coursera
Unsupervised Learning, Recommenders, Reinforcement Learning July 2023
DeepLearning.AI & Stanford University via Coursera
Advanced Learning Algorithms June 2023
DeepLearning.AI & Stanford University via Coursera
Supervised Machine Learning: Regression and Classification May 2023
DeepLearning.AI & Stanford University via Coursera
Through the coursework accompanying these certificates I developed familiarity with many fundamental concepts and machine learning tools, including:

- Using popular machine learning libraries like NumPy, scikit-learn, Tensorflow, and keras
- Building and training supervised machine learning models for prediction and binary classification tasks, including linear regression and logistic regression
- Supervised learning (multiple linear regression, logistic regression, neural networks, and decision trees)
- Unsupervised learning (clustering, dimensionality reduction, recommender systems),
- Best practices for artificial intelligence and machine learning innovation (evaluating and tuning models, taking a data-centric approach to improving performance)

Beyond these certificates I have practiced implementing these tools on publicly available data sets, as well as in completing freely available coursework on applications of machine learning.

SKILLS

Mathematics: Research, Topology, Contact Toplogy, Topological Data Analysis, Experimental Mathematics
Programming: python (most proficient), Mathematica, MATLAB, C/C++, java, SQL, R
Python Libraries: numpy, scipy, matplotlib, seaborn, pandas, tensorflow, keras, scikit-learn
Other: Technical writing, LaTeX

Note: A more detailed CV and list of professional references are available upon request.