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

Ph.D., Mathematics 2015
Univeristy of Iowa, Iowa City, IA
Graduate Certificate in College Teaching 2014
Univeristy of Iowa, Iowa City, IA
Masters, Mathematics 2012
Univeristy of Iowa, Iowa City, IA
B.Sc., Mathematics 2009
State University of New York at Buffalo, Buffalo, NY
B.A., Psychology 2004
University of North Carolina at Wilmington, Wilmington, NC

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.

ADDITIONAL TECHNICAL SKILLS

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