MARCOS ORTIZ, PHD

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SUMMARY

I am a PhD Mathematician from the University of Iowa, with more than 14 years of academic and research experience. I excel at complex problem solving tasks, and I am seeking opportunities to apply these skills as a data scientist. My ideal workplace is one in which I am frequently challenged with new problems, and given opportunities drive product development forward. I enjoy exploring complex data, finding creative ways to gain actionable insights from it, and communicating those finding in ways that can be understood and utilized by teams and colleagues with a wide variety of backgrounds and expertise.

EXPERIENCE

Colorado Mesa University, Grand Junction, CO 2018 – present

Instructor of Mathematics

- Designed and implemented extensive inquiry based course materials for the Engineering Calculus sequence, as well as Linear Algebra, Differential Equations, and Discrete Mathematics.
- Adapted course material for remote learning in Precalculus, Calculus I, II, and III.
- Earned an overall score of 95% on student evaluations across all courses taught.
- Awarded the highest possible faculty performance rating, *Exceptional*, for the past 4 years in a row.

Grinnell College, Grinnell, IA 2015-2018

Visiting Assistant Professor

- Mentored advanced undergraduate summer research projects in topology and topological data analysis.
- Developed lectures, homework, exams, and student projects for Linear Algebra, Number Theory, Topology, and Abstract Algebra.

University of Iowa, Iowa City, IA 2009-2015

Graduate Fellow

- Conducted graduate research in topology, contact topology, and experimental mathematics
- Proved novel results in contact topology, establishing a classification of a mathematical phenomena under a broad set of hypotheses.
- Organized a graduate research group in topology, which drew speakers from a variety of fields, including contact topology, knot theory, and topological data analysis.

MACHINE LEARNING

Through coursework and certifications I have 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)

SKILLS AND CERTIFICATES

Mathematics: Research, Low Dimensional Topology, Experimental Mathematics, Topological Data Analysis, Linear Algebra, Abstract Algebra, Analysis, Number Theory, Differential Equations, Vector Calculus

Technical: python, C++, SQL, Excel, LaTeX, git

Python Libraries: numpy, pandas, matplotlib, seaborn, tensorflow, keras, scikit-learn, scipy

Deeplearning.AI and Stanford University Certificates: •Machine Learning Specialization •Unsupervised Learning •Advanced Learning Algorithms •Supervised Machine Learning

EDUCATION

PhD, Mathematics University of Iowa *Department of Mathematics* 2015

Graduate Certificate in College Teaching University of Iowa *Graduate College* 2014

Masters, Mathematics University of Iowa *Department of Mathematics* 2012

B.Sc., Mathematics State University of New York at Buffalo *Department of Mathematics* 2009

B.A., Psychology University of North Carolina at Wilmington *Department of Psychology* 2004