

Website

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Programming

♥ Python: Pandas, Seaborn, Num/Scipy, SciKit-learn, Cython
C++, ROOT, L^AT_EX
caffe, TensorFlow
XML, JSON
Git, Google Scripting
OS: Linux, Mac

Introduction

I recently received my Ph.D in experimental particle physics at University of Cincinnati. I have strong skills in statistical data analysis, data wrangling, computer science, and mathematics. I regularly investigate, collaborate, and understand intricate problems that involved connecting large data sets and unique scenarios with new ideas and intuitive visualizations. I prefer python/C++ and can learn other languages quickly.

Education

2013, 2017	M.S., Ph.D in Particle Physics	University of Cincinnati
2010	B.S. in Physics, Minor Mathematics	Lycoming College
2009	B.A. in Astronomy, Minor Philosophy of Science & Metaphysics	Lycoming College

Core Abilities

Modeling: Able to design and implement strong predictive models as well as identify robust metrics. Competent in using multi-variate regression models, principal component analysis, and developing other useful techniques for unique data analysis. Experienced in statistical modeling and interpretation.

Full Scope: Capable to develop a detailed action plan for both team and individual projects that contains both progress milestones and simple checklists to identify progress.

Interpersonal: Able to effectively contribute and lead several large (15+ member) scientific teams on a wide scale of different projects spanning across hardware design, software architecture and public image.

Communication: Overall divergent thinker who is adept at conveying new ideas in a clear, concise, and intuitive manor through the use of various plots, graphics, and animations.

Experience

2012–Now	Research Assistant at Fermi National Accelerator Laboratory	Batavia, IL
	Designed novel algorithms to identify features in large unique data sets obtained from subatomic particle interactions. Contributed to various code that exploits aspects of traditional clustering, regression, machine learning, neural networks, and image processing techniques. Considerable contributions towards hardware design and new innovative prototyping with limited resources.	
2010–2012	Teaching Assistant at University of Cincinnati	Cincinnati, OH
	Develop and distribute course material in the form of problem sets and presentations regarding weekly topics from the syllabus. Conduct weekly hands-on labs that were paired to the material discussed the previous week in lecture.	
2007–2010	Physics & Math Tutor at Lycoming College	Williamsport, PA
	Maintain weekly hours at the university study center and provide individual study sessions for students. Administer a weekly recitation period for students to work through problem sets and ask questions about course material.	

Interests

Technical: Machine learning, Image Processing, Deep Neural Networks, CNN's, NLP, SQL, Jupyter, Arduino, Robotics, and Hardware.

Personal: Culture, jazz, travel, food & drink, board games, fitness, and learning anything new.

See my website for more information and a link to my blog for example projects: www.ryangrosso.com/blog

• References available upon request