

# MATTHEW GUDORF

DATA SCIENTIST

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## SUMMARY

Data scientist with theoretical Physics background specializing in nonlinear dynamics and spatiotemporal chaos. Creator of the orbithunter partial differential equation solver Python package. My main interests are data-driven storytelling, machine learning, deep learning and the application of computational algorithms.

## EMPLOYMENT

Aug. 2015 to Current      Georgia Tech · Graduate Research Assistant · Atlanta, GA

## EDUCATION

Sept. 2009 to May 2013      University of Michigan, Ann Arbor  
B.S. Physics, Mathematical Physics  
Double major in Physics and Mathematical Physics.

Aug. 2015 to Current      Georgia Tech  
PhD. Physics  
Graduation planned for December 2020.

Sept. 2019 to Current      Springboard Data Science Bootcamp

## SKILLS

**DATA SCIENCE**      Machine Learning, Pandas, Deep learning, Keras, Python, Statistical Analysis, Exploratory Data Analysis, Data Storytelling, Convolutional Neural Networks, Recurrent Neural Networks, Scikit-learn

## PROJECTS

Sept. 2019 to Current      Python package orbithunter  
Framework for solving nonlinear chaotic partial differential equations. The listed dates represent the process of packaging and refactoring my research code.

Sept. 2019 to Jan. 2020      Lending club loan outcome prediction  
Multi-faceted data science project. Main deliverable : models which predicted loan outcomes and a model for predicting the recovery amount for defaulted loans.

Mar. 2020 to Current      COVID-19 forecasting model comparison  
Multi-step project including data cleaning, data wrangling, exploratory data analysis, statistical analysis, and comparison of different models for the forecasting of the number of new COVID-19 cases.

## VOLUNTEERING

Atlanta Science Festival · Scientific presenter and organizer · Atlanta, Ga  
Helped organize and participate in events including: The science of beer, the science of the circus, and the science of food.