

Rory Hartong-Redden

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Summary

Physicist turned data scientist turned competent coder

Skill Summary

Languages: Python, MATLAB
Data: Pandas, SQLAlchemy, SQL

Dev Tools: Git, Heroku, AWS
Machine Learning: Keras, scikit-learn, XGBoost

Work Experience

- **Startup.ML** San Francisco, CA
Fellow Dec 2015–Present
 - Deployed a Python app to heroku which ingests 800MB a day from a live websocket feed into a Postgres database (learning asynchronous programming along the way)
 - Backtesting algorithmic trading models with Zipline
 - **Harold Washington College** Chicago, IL
Adjunct Faculty Feb 2015–May 2015
 - Gave 2 lectures a week for a descriptive astronomy course
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Projects

- **Self-Directed Study** Chicago, IL
Home May 2015–Present
 - Studying and applying machine learning methods in Kaggle competitions
 - Learned the basics of object-oriented programming with Ruby and Python
 - Deployed a Twitter-like app in Rails to Heroku by following the *Ruby on Rails Tutorial*
 - **Arctic Sea Ice Modeling** Northwestern University
Prof. Mary Silber, Dept. of Applied Mathematics Sep 2011–Jan 2012
 - Coded models of arctic sea ice in MATLAB for the study of climate change
 - **Bachelor's Thesis: Drop Splash Experiment** Santa Barbara, CA
Krechetnikov Fluid Physics Lab, Dept. of Mechanical Engineering Jul 2009–Oct 2010
 - Published a peer-reviewed article¹ and gave a talk at a national conference² on the experimental and theoretical advances I developed that may have solved a 100-year puzzle in fluid dynamics
 - **Transient Optical Sky Survey** Santa Barbara, CA
Lubin Lab, Dept. of Physics Sep 2008–Jun 2009
 - Collaborated on the MATLAB/C image processing pipeline that processed 1GB of data per night
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Education

- **University of California, Santa Barbara** Santa Barbara, CA
MS Mechanical Engineering Dec 2014
- **Northwestern University** Evanston, IL
Graduate study in Physics & Astronomy Sept 2010–Mar 2012
- **University of California, Santa Barbara** Santa Barbara, CA
BS Physics & Mechanical Engineering June 2010
 - Graduated with honor in both degrees, GPA: 3.7/4.0
 - Dean's List 11/12 quarters.
 - Member: Tau Beta Pi engineering honor society

¹Hartong-Redden, R. & Krechetnikov, R. *Pattern identification in systems $S(1)$ symmetry*. Phys. Rev. E. 2011.

²63rd Annual Meeting of the APS Division of Fluid Dynamics