

# Rory Hartong-Redden

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## Summary

Physicist turned data scientist who's good at doing lots of things okay and a few things very well

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## Skill Summary

**Languages:** Python, MATLAB

**Data:** Pandas, SQLAlchemy, PostgreSQL

**Dev Tools:** Git, Heroku, AWS

**Machine Learning:** Keras, scikit-learn, XGBoost

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## 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 (learned the basics of asynchronous programming along the way)
    - Backtesting trading models in 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

- **Data Science Self-Directed Study** Chicago, IL  
May 2015–Dec 2015
    - Deployed a Twitter-like app in Rails to Heroku by following the *Ruby on Rails Tutorial*
  - **Master's Thesis: Faraday Waves Experiment** Santa Barbara, CA  
*Krechetnikov Fluid Physics Lab, Dept. of Mechanical Engineering* Dec 2013–Jun 2014
    - Implemented a novel 3D fluid surface measurement using MATLAB for image processing
  - **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 article<sup>1</sup> and gave a talk at a national conference<sup>2</sup> 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 data pipeline that processed 1GB of images 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
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<sup>1</sup>Hartong-Redden, R. & Krechetnikov, R. *Pattern identification in systems  $S(1)$  symmetry*. Phys. Rev. E. 2011.

<sup>2</sup>63<sup>rd</sup> Annual Meeting of the APS Division of Fluid Dynamics