

Rory Hartong-Redden

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Summary

Physicist turned data scientist

Skill Summary

Languages: Python, MATLAB

Data: Pandas, SQLAlchemy, PostgreSQL

Dev Tools: Git, Heroku

Machine Learning: Keras, scikit-learn

Work Experience

- **Startup.ML** San Francisco, CA
Fellow *Dec 2015–Present*
 - Deployed a Python app to heroku running a Twisted framework to ingest 800MB a day from a live websocket feed into a Postgres database (learned asynchronous programming)
 - Exploring feasibility of neural networks for use in algorithmic trading
 - **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
 - Learning object-oriented programming with Ruby, Python
 - Built a Twitter clone with the *Ruby on Rails Tutorial* and learned to use Rails, Heroku, and Git
 - **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 analysis
 - **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 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
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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