

Rory Hartong-Redden

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Summary

“Be so good they can’t ignore you”
– Steve Martin

At heart, I’m a physicist who enjoys answering questions with data.

Skill Summary

Languages: MATLAB, Python

Toolkits: scikit-learn, Pandas, SQLAlchemy

Projects

- **Data Science and Computer Science Self-Study** Chicago, IL
Home May 2015– Pres
 - Currently working through *Bayesian Methods for Hackers*
 - Using the tools in scikit-learn on datasets from Kaggle and elsewhere
 - Exploring scientific programming environments: Python, R, SAS
 - Completed the *Ruby on Rails Tutorial* and built a Twitter clone with Ruby on Rails, Heroku, 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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Work Experience

- **Harold Washington College** Chicago, IL
Adjunct Faculty Feb 2015–May 2015
 - Incorporated the latest discoveries in astronomy and the new *Cosmos* into my lessons
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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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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