Rory Hartong-Redden

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Summary

I'm a 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 that saves a websocket feed into a postgres database
  - Exploring feasibility of neural networks for use in algorithmic trading

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

Projects

- **Data Science self-directed study**   Chicago, IL
  Home   *May 2015– Pres*
  - 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 article[1] and gave a talk at a national conference[2] 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

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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[1] Hartong–Redden, R. & Krechetnikov, R. *Pattern identification in systems S(1) symmetry.* Phys. Rev. E. 2011.
[2] 63rd Annual Meeting of the APS Division of Fluid Dynamics