

# Rory Hartong-Redden

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## Summary

data scientist, data engineer, lapsed physicist

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## Tools

Python, SQL Machine Learning, Computer Vision, Deep Learning  
Spark, Postgres, Hadoop, PostGIS, ArcMap Jupyter Notebooks, Git, Bash  
**Python Packages:** Pandas, matplotlib, NumPy, OpenCV, scikit-learn, TensorFlow, requests, Flask

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## Work

- **Allstate** Menlo Park, CA  
*Data Scientist* Jul 2015–Present
    - Support and guide research partnership with the Stanford Intelligent Systems Lab
    - Preparing datasets for other team members
    - Geospatial analysis
  - **Startup.ML** San Francisco, CA  
*Machine Learning Fellow* Dec 2015–Apr 2016
    - Developed a FinTech data pipeline for algorithmic currency trading using machine learning
    - Lead the integration of an open-source Python backtesting and trading platform
  - **Harold Washington College** Chicago, IL  
*Adjunct Faculty* Feb 2015–May 2015
    - Presented complex concepts in Astronomy at the level of the general public
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## Projects

- **Master's Thesis** UC Santa Barbara  
*Krechetnikov Fluid Physics Lab* Dec 2013–Jun 2014
    - Incorporated a recent image processing technique for cheap 3D high speed mm-resolution measurement over a surface area of  $225\text{ cm}^2$  [profilometry repository]
  - **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 on the experimental and theoretical advances I developed that may have solved a 100-year-old puzzle in fluid dynamics
  - **Transient Optical Sky Survey** UC Santa Barbara  
*Lubin Lab, Dept. of Physics* Sep 2008–Jun 2009
    - Image processing with a Matlab/C data pipeline that analyzed 1GB of images taken each night
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## Education

- **University of California, Santa Barbara** Santa Barbara, CA  
*MS Mechanical Engineering* Dec 2014
- **Northwestern University** Evanston, IL  
*PhD Physics Candidate* Sept 2010–Mar 2012
- **University of California, Santa Barbara** Santa Barbara, CA  
*BS Physics & BS Mechanical Engineering* June 2010