Rory Hartong-Redden

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# **Summary**

python developer and data scientist computer vision, machine learning, applied math

## Skills Summary

Languages: Python, Matlab, R, C++

Data: Pandas, SQL, Postgres, HDF5

Dev: Linux, Git, Heroku, PyCharm, AWS

Python Tools: Conda, IPython, Jupyter, Keras, matplotlib, NumPy, OpenCV, Pandas, SQLAlchemy

### Work Experience

• Startup.ML

San Francisco, CA

Machine Learning Fellow

Dec 2015-Apr 2016

- Wrote a FinTech data pipeline from scratch using Python, SQLAlchemy, and Postgres to store streaming financial data
- Lead the integration of an open-source Python trading platform for testing predictive models
- Research in Reinforcement Learning for autonomous trading

### • Harold Washington College

Chicago, IL

Adjunct Faculty

Feb 2015-May 2015

- Presented concepts in Astronomy and Cosmology at the level of the general public

# **Projects**

• Kaggle May 2015–Present

Identifying distracted drivers in images with deep learning for the "State Farm Distracted Driver"
 Kaggle competition

• 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 cm<sup>2</sup> [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<sup>1</sup> on the experimental and theoretical advances I developed that may have solved a 100-year puzzle in fluid dynamics
- Transient Optical Sky Survey

UC Santa Barbara

Lubin Lab, Dept. of Physics

Sep~2008-Jun~2009

 Anomaly detection in astronomy using a Matlab/C data pipeline that analyzed 1GB of images taken each night

#### Education

• University of California, Santa Barbara
MS Mechanical Engineering

Santa Barbara, CA

Dec 2014

• University of California, Santa Barbara

Santa Barbara, CA

BS Physics & BS Mechanical Engineering

June 2010

- Graduated with honor in both degrees, Dean's list 11/12 quarters, GPA: 3.7/4.0
- Member: Tau Beta Pi engineering honor society

<sup>&</sup>lt;sup>1</sup>Hartong-Redden, R. & Krechetnikov, R. Pattern identification in systems S(1) symmetry. Phys. Rev. E. 2011.