Rory Hartong-Redden

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Summary

machine learning, data science, physics, software development

Skills Summary

Languages: Python, MATLAB
Data: SQL, PostgreSQL, HDF5
Python Stack: Conda, Keras, NumPy, Pandas, PyTables, scikit-learn, SciPy, SQLAlchemy
Dev Tools: Git, Heroku, PyCharm, AWS
ML: Neural Networks, Decision Trees

Work Experience

- **Startup.ML** — San Francisco, CA
  Machine Learning Fellow — *Dec 2015–Present*
  - Developed a production FinTech data pipeline for currency trading using industry-standard machine learning methods
  - Investigating how Reinforcement Learning can be leveraged to revolutionize 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

- **Kaggle** — San Francisco, CA
  Home — *May 2015–Present*
  - Coded a deep residual convolution network in Keras/TensorFlow for multi-label classification for the Yelp Kaggle competition [yelp_kaggle repository]
- **Master's Thesis: Krechetnikov Fluid Physics Lab** — Santa Barbara, CA
  Research Assistant — *Dec 2013–Jun 2014*
  - Incorporated a recent image processing technique for cheap 3D high speed mm-resolution measurement over a surface area of $225\,\mathrm{cm}^2$ [profilometry repository]
- **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*
  - Thesis: *Experimental apparatus for the study of Faraday waves on time-varying domains*
- **Northwestern University** — Evanston, IL
  Graduate study: PhD Physics — *Sept 2010–Mar 2012*
- **University of California, Santa Barbara** — Santa Barbara, CA
  BS Physics & BS Mechanical Engineering — *June 2010*
  - Thesis: *Experimental and theoretical study of pattern identification in physical systems with circular symmetry*
  - Graduated with honor in both degrees, GPA: 3.7/4.0
  - Dean's List 11/12 quarters