Richard Boeri Decal

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Skills
$^+$ **denotes proficiency**

Algorithms	Supervised, unsupervised, and reinforcement learning · Cross-validation · PCA
Languages	Python$^+$ · R · SQL
Packages	Tensorflow · Pandas$^+$ · Numpy$^+$ · Scikit-learn · Matplotlib$^+$
Misc.	Español$^+$ · English$^+$ · Italiano · UNIX systems$^+$
Passions	Travel, teaching, learning, social justice, tiny living. Research interests: molecular biology, climate science, computational neuroscience, +++.

Projects

CartPole	I solved CartPole (a continuous classic control game) using policy gradients.
Income Prediction	Predicted incomes using California census data based on 14 characteristics using feature engineering, support vector machines, and cross-validation.
Roboskeeter *(ongoing)*	Created models of mosquito heat-tracking behavior during foraging from wind-tunnel experimental data.

Experience

Research Assistant — Seattle, WA
Fairhall Lab, Dept. of Biophysics, Uni. of Washington — 2014 → 2016

- Simulated mosquito thermonavigation (data munging, design, coding, visualization, analysis).
- Learned concepts in neuronal dynamics which are relevant to artificial deep neural networks.

Publications

"Analysis of neural subtypes reveals selective mitochondrial dysfunction in dopaminergic neurons from parkin mutants". *PNAS* 2012. 109(26):10438-43.

"Destruction Complex Function in the Wnt Signaling Pathway of Drosophila Requires Multiple Interactions Between Adenomatous Polyposis Coli 2 and Armadillo". *Genetics* 2012. 190(3):1059-75.

"Quantifying Small RNA Concentrations in *C. elegans*". Honors thesis. 2011.

Education

M.S. Data Science, *New College of Florida. Expected 2019.* — Sarasota, FL
Artificial Intelligence Engineer Nanodegree, *Udacity & Kaggle* — Udacity.com
B.A., Chemistry/Biology (Honors), *New College of Florida* — Sarasota, FL