Richard Boeri Decal

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Skills

$^+$ **denotes proficiency**

Languages	Python$^+$ · R · SQL · BASH · Español$^+$ · English$^+$ · Italiano
Packages	Tensorflow · Pandas$^+$ · Numpy$^+$ · Scikit-learn · Matplotlib$^+$ · Tidyverse
Passions	Travel, teaching, learning, social justice, my tiny home. Research interests: machine learning, molecular biology, climate science, computational neuroscience.

Experience

Classroom Mentor — Remote
Udacity.com, Intro to Programming Nanodegree — 2017 — Now

- I provide tailored guidance for students learning Python and data analysis.

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

- Developed dynamical agent-based models of mosquito thermonavigation. Optimized simulations using flight data from windtunnel experiments.
- My models will be further validated using electrophysiological & tethered flight experiments to test theories about multi-modal sensation and decision-making.

Publications

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

Kunttas-Tatli, Zhou, Zimmerman, Molinar, Zhouzheng, Carter, Kapur, Cheatle, **Decal**, McCartney. "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.

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

Projects

PolceStops	Created a webapp to query and visualize the Stanford Open Policing dataset.
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	Modelling mosquito heat-tracking behavior from windtunnel experiments.

Education

M.S. Data Science, *New College of Florida.* Full tuition scholarship.	Expected 2019
Artificial Intelligence Engineer Nanodegree, *Udacity*	2017
B.A., Chemistry/Biology (Honors), *New College of Florida*	2011