Richard Boeri Decal

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Skills

$^+$ **denotes proficiency**

Languages	Python$^+$ · R · BASH · ECL · Español$^+$ · English$^+$ · Italiano
Tools	Tensorflow · Pandas$^+$ · SciPy$^+$ · PySpark · Flask · Hadoop · Tidyverse · PostgreSQL · MongoDB · HBase · HPCC
Passions	AI for social good, pedagogical chatbots, carbon sequestration, blockchain, anti-censorship, social justice, computational neuroscience, travel, photos, my tiny home.

Experience

Data Scientist, *Florence A. Rothman Institute* 2018
Studying effect of chronic conditions on heart failure with autoencoders, clustering, & Markov models.

Research Intern, *Allen Institute for Brain Science* Summer 2018
Applying deep reinforcement learning for tracing neurons on petabytes of brain microscope data.

Research Assistant, *Fairhall Lab, Dept. of Biophysics, Uni. of Washington* 2014 — 2016
Simulating mosquito thermal plume navigation with agent-based models of windtunnel experiments.

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.

Other Projects

Tensorpack	Contributed to deep reinforcement learning framework for medical image data.
PolceStops	Created a webapp to query and visualize the Stanford Open Policing dataset.
Income Prediction	Predicted incomes using California census data using feature engineering, support vector machines, and cross-validation.
CartPole	I solved a physics game using a deep policy gradient neural network.

Education

M.S. Data Science, *New College of Florida.* Full tuition scholarship. Expected Dec. 2018
Artificial Intelligence Engineer Nanodegree, *Udacity* 2017
B.A., Chemistry/Biology (Honors), *New College of Florida* 2011