

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 · SSH
Passions AI for social good, pedagogical chatbots, carbon sequestration, blockchain, anti-censorship, social justice, computational neuroscience, travel, [photos](#), my tiny home.

Experience

Data Scientist, *Master's capstone project* 2018
Studying effect of chronic conditions on heart failure with autoencoders, clustering, & Markov models.

Research Intern, *Allen Institute for Brain Science* Summer 2018
Enabling neuron tracing of petabyte-scale brain microscope data using deep reinforcement learning.

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