

Richard Boeri Decal

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Skills

+ denotes proficiency

Languages Python⁺ · R · BASH · RegExp · ECL · Español⁺ · English⁺ · Italiano
Tools Tensorflow · Pandas⁺ · SciPy⁺ · PySpark · Flask · Hadoop · Tidyverse · MongoDB · PostgreSQL · HBase · HPCC · BeautifulSoup · 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 using embeddings, 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.

Classroom Mentor, *Intro to Programming Nanodegree, Udacity* 2017 — 2018
Guided students one-on-one in the Python for Data Analysis Track.

Research Assistant, *Fairhall Lab, Dept. of Biophysics, Uni. of Washington* 2014 — 2016
Simulating mosquito thermal plume navigation using 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, Cheattle, **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