

Richard Boeri Decal

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Skills

+ denotes proficiency

Languages Python⁺ · R · BASH · RegExp · ECL · Español⁺ · English⁺ · Italiano · 官话
Tools Tensorflow · Pandas⁺, SciPy⁺ · Spark, Hadoop, HPCC · Flask, Plotly⁺ · Tidyverse · MongoDB, PostgreSQL, HBase · BeautifulSoup, Scrapy · GraphViz · AWS · SAS
Passions AI for social good, educational chatbots, carbon sequestration, blockchain, anti-censorship, molecular bio, 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 1-on-1 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

Author ID NLP analysis to deanonymize the *New York Times* "[Resistance Op-Ed](#)" author.

Tensorpack Contributed to deep learning framework for automating medical imaging tasks.

visit2vec Created a word2vec variant for embedding patient visits & clustering.

Etsy Trends Stealth start-up: scraping Etsy & programatically generating product ideas.

Capsule Net Using [CapsNet](#) for [manifold learning](#) of notMNIST; synthesizing new digits.

Education

M.S. Data Science, *New College of Florida*. Full tuition scholarship. 2018

Artificial Intelligence Engineer Nanodegree, *Udacity* 2017

B.A., Chemistry/Biology (Honors), *New College of Florida* 2011