# Richard Boeri Decal

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**Skills** + denotes proficiency

**Languages** Python<sup>+</sup> · R · BASH · RegExp · ECL · Español<sup>+</sup> · English<sup>+</sup> · Italiano

**Tools** Tensorflow · Pandas<sup>+</sup>, MongoDB, PostgreSQL, HBase · SciPy<sup>+</sup> · PySpark, Hadoop,

HPCC · Plotly Dash, Flask · Tidyverse · BeautifulSoup · SSH, AWS

**Passions** Al for good: carbon sequestration, existential risk, healthcare, computational neuro-

science, disinformation, education, molecular bio. Travel, photos, my tiny home.

## **Experience**

Data Scientist, Pacemate

2019

Improving cardiac patient care with automated time-series analysis of ECG data.

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, 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.

Created a webapp to query and visualize the Stanford Open Policing dataset. **PolceStops** 

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

Dec. 2018

2011