# Richard Boeri Decal

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Skills + denotes proficiency

**Languages** Python<sup>+</sup> · R (Tidyverse) · Español<sup>+</sup> · English<sup>+</sup> · Italiano

**Tools** PyTorch<sup>+</sup>, Keras, Tensorflow · (Geo)Pandas<sup>+</sup>, Dask, PostgreSQL · Ray/Anyscale,

PySpark, Hadoop · MetaFlow+, Airflow, Kedro+, MLFlow · Scipy, SKLearn, UMAP ·

Plotly Dash, Streamlit, Seaborn, Altair · AWS stack, SageMaker · LATEX

**Passions** Al for climate change. Travel, photos, my tiny home, Couchsurfing.

# **Experience**

#### **Lead Machine Learning Engineer**, Dendra Systems

2020 — now

Founding lead. Full-stack ML engineer, scaling ecosystem analysis.

#### Lead Data Scientist, Pacemate

2019

First ML hire. Improved cardiac patient care with automated time-series analysis of ECG data.

#### Data Scientist, Master's capstone project

2018

Modeled effects of chronic conditions on heart failure using embeddings, clustering, & Markov models.

Research Intern, Neuron Morphology Team, Allen Institute for Brain Science

Summer 2018

POC deep reinforcement learning for neuron tracing of Pb-scale brain microscope data.

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

Simulated 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 siRNA Concentrations in *C. elegans*". Honors thesis. 2011.

#### **Invited Talks**

Ray Summit '21 How Ray and Anyscale Make it Easy to do Massive-scale ML on Aerial Imagery.

## **Education**

M.S. Data Science, New College of Florida. Full tuition scholarship.
B.A., Chemistry/Biology (Honors), New College of Florida
Harriet L. Wilkes Honors College, Early admission (16 years old)
2017 — 2018
2007 — 2011
2006 — 2007

MOOC: Comp. Neurosci. ('14), ML Foundations ('16), ML Engineer ('17), GANs ('20), MLOPs ('21)