

# 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<sup>+</sup>, PySpark, Hadoop · MetaFlow<sup>+</sup>, Airflow, Kedro<sup>+</sup>, MLFlow · Scipy, Sklearn, UMAP<sup>+</sup> · Plotly Dash, Streamlit, Gradio, Seaborn, Altair<sup>+</sup> · AWS stack, SageMaker ·  $\LaTeX$   
**Passions** AI for climate change. Travel, [photos](#), outdoor sports, [Couchsurfing](#).

## Experience

**Lead Machine Learning Scientist**, *Dendra Systems* 2020 — now  
Founding lead. Full-stack ML engineer, scaling ecosystem analysis with long-tailed computer vision.

**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, 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 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. 2017 — 2018  
**B.A., Chemistry/Biology (Honors)**, *New College of Florida* 2007 — 2011  
**Harriet L. Wilkes Honors College**, *Early admission (16 years old)* 2006 — 2007  
**MOOC**: Comp. Neurosci. ('14), ML Foundations ('16), ML Engineer ('17), GANs ('20), MLOPs ('21)