

## BARUCH TABANPOUR

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### WORK

#### *Machine Learning Engineer* – **Squarespace**

Feb 2017-Present

- Built python microservice framework with continuous deployment on Kubernetes for the the first machine learning models in production at Squarespace.
- Internationalized text based search models in 6 languages (see [blog post](#)).
- Created a functional wrapper around Luigi for sharing datasets and building models.
- Developed semantic search for a variety of different products: template search, text to image search, and push notifications based on site traffic.
- Data collection, modeling and performance testing for image tagging and saliency detection services to be used for SEO/accessibility and image cropping suggestions.

#### *Data Scientist* – **ondeck**

July 2015-Jan 2017

- Built fraud model with scoring service running in production, averting ~\$250k in fraud per quarter.
- Developed loss forecasting and time-to-default models based on payment and behavioral data.
- Performed AB tests for email campaigns and administered AWS instances used for modeling.

#### *Research Assistant - Computer Vision* – **Columbia University**

June-Aug 2015

#### *Research Assistant - Physics* – **CUNY Laboratory for Nano and Micro Photonics**

June-Oct 2013

#### *Summer Research Fellow - Physics* – **National Institute of Standards in Technology**

May-Aug 2012

#### *Research Intern - Climatology* – **NASA Goddard Institute of Space Studies**

May-Aug 2010

### TOOLS

- Daily: Python, Tensorflow, Keras
- Infrastructure: Kubernetes, Docker, GCP, Drone, Consul/Prometheus, S3
- Familiar: R, MATLAB, HTML/CSS/JS, HDFS/Spark, Theano

### PERSONAL PROJECTS

[yarlp](#) – yet another reinforcement learning package in tensorflow for reproducible RL experimentation

[Joint image-text embeddings](#) - mapping images and text into the same space using CCA

[Intro-to-Reinforcement-Learning](#) - full solutions to Introduction to RL by Sutton & Barto

[sinkhorn-knopp](#) - implementation of Sinkhorn Knopp algorithm

[Handwritten-generation](#) - implementation of handwritten generation with RNNs

[climatechangebot](#) - climate change chatbot

### EDUCATION

#### **Columbia University**

May 2015

M.S. Applied Physics and Mathematics – GPA: 3.87 / 4.00

#### **The City College of New York, Macaulay Honors College**

Feb 2014

B.E. in Electrical Engineering, Minor in Physics – GPA: 3.96 / 4.00, Rank: 1/152