# DYLAN LABATT RANDLE

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#### **EDUCATION**

#### Harvard University

M.S. in Data Science

Cambridge, MA

Expected May 2020

· Relevant coursework: Stochastic Methods & Bayesian Inference, High Performance Computing, Advanced Data Science, Software Development for Data Science

## University of California, Berkeley

Berkeley, CA

B.S. in Industrial Engineering & Operations Research, GPA: 3.9/4.0

May 2016

- · Honors: High Honors at Graduation, Dean's Honors, Tau Beta Pi, Phi Beta Kappa
- · Relevant coursework: Statistics & Machine Learning, Optimization, Simulation, Decision Theory

#### RELEVANT EXPERIENCE

#### Harvard University

Cambridge, MA

Research Assistant

Nov 2018 - Present

· Researching physics-aware neural networks for solving differential equations.

Hubdoc

Toronto, Canada

Feb 2017 - July 2018

Data Scientist

- · Developed and deployed deep learning system using LSTMs & CNNs for information extraction and text classification from financial documents. Greatly reduced cost (\$1-3MM/year) and increased speed (14,000x faster for 80% of documents) of results. Used Python, Keras, Postgres, Ansible, AWS.
- · Conducted analyses (capacity planning, anomaly detection, work prioritization) as needed. Built data visualizations for company intranet.
- $\cdot$  Presented results and recommendations to management team. Delivered introductory machine learning lecture to 60+ people.

#### **BMO** Capital Markets

Toronto, Canada

Financial Products Analyst

May 2014 - Aug 2014

· Conducted analyses of various debt products (swaps, swaptions, ABS, MBS). Wrote custom C# algorithm to analyze relationship between delta-hedging frequency and returns for Canadian swaptions; found possible trading opportunities.

### RELEVANT PROJECTS

## Automatic Differentiation: https://github.com/dylanrandle/autograd

· Built a Python package implementing automatic differentiation (forward and reverse mode). Used to implement gradient descent and Adam optimizers, with extensive documentation.

## Troll Classification of Tweets: https://dylanrandle.github.io/troll\_classification

· Achieved 96% accuracy in classifying tweets as trolls, using a dataset of Twitter handles indicted for meddling in the 2016 U.S. presidential election.

#### TECHNICAL SKILLS

Expert Python (numpy, pandas, scikit-learn, pytorch, keras, pymc3), SQL

**Proficient** Git, Vim, C/C++, Javascript, Latex