# Dylan Labatt Randle

dylanrandle.github.io

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## Education

- **Harvard University, School of Engineering & Applied Sciences** — Cambridge, MA
  *Master of Science in Data Science; GPA: 4.0* — *Sep 2018 – Present*
  - **Awards**: IACS Scholarship
- **University of California at Berkeley, College of Engineering** — Berkeley, CA
  *Bachelor of Science in Industrial Engineering & Operations Research; GPA: 3.9* — *Sep 2012 – May 2016*
  - **Awards**: High Honors at Graduation, Frank Kraft Award for Freshmen, Dean's List (2012-2016), Phi Beta Kappa

## Relevant Experience

- **Institute of Applied Computational Science, Harvard University** — Cambridge, MA
  *Graduate Research Assistant* — *Nov 2018 – Present*
  - **Deep Learning in Physics**: Researching unsupervised Generative Adversarial Networks for solving ordinary and partial differential equations. Researched and developed neural network methods for unsupervised learning of solutions to Reynolds-Averaged Navier Stokes equations
- **Hubdoc, Inc. (acquired by Xero Ltd.)** — Toronto, Canada
  *Lead Data Scientist* — *Jan 2017 – Jul 2018*
  - **Deep Learning**: Developed and deployed production deep learning system using LSTMs & CNNs for information extraction (i.e. entity recognition and classification) from financial documents. Extraction time reduced from 24 hours to 5 seconds; cost savings estimated at $2MM/year. Tech stack: Python, Keras, Postgres, Ansible, AWS
  - **Data Science**: Conducted business and engineering analyses: e.g. capacity planning of labor and anomaly detection for web scrapers. Wrote reports and built data visualizations (with D3.js) for company intranet
  - **Management**: Regularly presented results and recommendations to C-suite. Integral in crafting team strategy and roadmap. Coordinated with product and marketing teams. Involved in fundraising and presentations to investors. Delivered machine learning lecture to 60+ people
- **Bank of Montreal, Capital Markets** — Toronto, Canada
  *Financial Products Analyst* — *Summer 2014*
  - **Fixed Income**: 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
  - **Sales & Trading**: Compiled daily summaries of trading activity. Reviewed and analyzed sales product pitches. Supported both sales and trading with various data analyses

## Relevant Projects

- **Twitter Troll Classification**: Project achieving 96% accuracy classifying Twitter trolls using tweets scraped from accounts indicted for meddling in the 2016 U.S. elections
- **Automatic Differentiation**: Python package implementing automatic differentiation, supporting both forward and reverse modes
- **Spark Tensorflow**: Training neural networks with Tensorflow on a Spark/Hadoop-YARN cluster with AWS Elastic Map Reduce
- **Bayesian Generative Adversarial Networks**: Paper review, implementation, and demo of Bayesian GANs

## Programming Skills

**Languages**: Python (numpy, pandas, scikit-learn, pytorch, keras, pymc3), SQL, C/C++
**Technologies**: AWS (EC2, EMR, S3), Spark, Git