

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
- **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:** Phi Beta Kappa, Tau Beta Pi, Dean's List, High Honors at Graduation

RELEVANT EXPERIENCE

- **Institute of Applied Computational Science, Harvard University** Cambridge, MA
Graduate Research Assistant Nov 2018 – Present
 - **Neural Networks for Differential Equations:** 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
 - **Production Deep Learning:** Developed and deployed production deep learning system using LSTMs & CNNs for information extraction (i.e. entity recognition and classification) from financial documents. Greatly reduced labor costs (\$1-3MM/year) and increased speed of service (14,000x for 80% of documents). Tech stack: Python, Keras, Postgres, Ansible, AWS
 - **Business Analytics:** Conducted business analyses as needed: e.g. capacity planning of labor, anomaly detection of web scrapers, and prioritization of scraper maintenance. Built reports and data visualizations for intranet
 - **Leadership:** 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 Derivatives Modeling:** 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

- **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
- **Twitter Troll Classification:** Project achieving 96% accuracy classifying Twitter trolls using tweets scraped from accounts indicted for meddling in the 2016 U.S. elections
- **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, Spark, MPI, OpenMP, OpenACC, Git