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. Greatly reduced cost (estimated at $2MM/year) and increased speed (24 hours to 5 seconds) of extraction. 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, Spark, MPI, OpenMP, OpenACC, Git