DYLAN LABATT RANDLE

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EDUCATION

Harvard University — Cambridge, MA
M.S. Data Science — *2018 - 2020*

- Thesis: "Unsupervised Neural Network Methods for Solving Differential Equations"
- Awards: Scholarship in Applied Computation, Special Distinction in Teaching

University of California, Berkeley — Berkeley, CA
B.S. Industrial Engineering & Operations Research — *2012 - 2016*

- Courses: Machine Learning, Statistics, Probability, Optimization, Stochastic Processes, Simulation
- Awards: High Honors at Graduation, Dean's Honors, Frank Kraft Award

WORK EXPERIENCE

Amazon Robotics — North Reading, MA
Data Scientist II — *2020 - Present*

- Leveraging data science to improve automated robotic fulfillment and transportation systems responsible for delivering billions of packages to customers across the globe

Harvard University, School of Engineering & Applied Sciences — Cambridge, MA
Teaching Fellow — *2019 - 2020*

- Introduction to Data Science
- Computing Foundations for Computational Science
- Awarded Special Distinction in Teaching

Amazon Robotics — North Reading, MA
Data Scientist, Intern — *Summer 2019*

- Developed AutoML package encapsulating data preprocessing with PySpark on AWS EMR and model development with PyTorch, Scikit-Learn, Statsmodels, and SHAP on AWS SageMaker
- Reduced time and complexity of ML model development and analysis; code package used by multiple analysts for a broad set of applications on a daily basis

Hubdoc — Toronto, Canada
Lead Data Scientist — *2017 - 2018*

- Developed and deployed deep learning NLP system for information extraction from financial documents
- First data scientist; hired and led team of two data scientists
- Acquired by Xero for $70 million USD

Taylor Statten Camps — Algonquin Park, Canada
Camp Counselor — *Summers 2011, 2012, 2013, 2015, 2016*

- Led canoe trips ranging from 2 to 50 days
- Responsible for groups of 8 to 16 year-old campers
- Covered ∼4000 km of remote North American wilderness

BMO Capital Markets — Toronto, Canada
Financial Products Analyst — *Summer 2014*

- Delta-hedging frequency optimization algorithm for interest rate swaps/swaptions
- Uncovered trading opportunities for fixed-income traders

TECHNICAL SKILLS

Programming Languages

- Fluent: Python, Java, SQL
- Experienced: Javascript, C++, MATLAB

Development Platforms

- MacOS/Linux, Amazon Web Services, Docker, Git, Conda, Jupyter

Software Libraries

- Modeling: `pytorch`, `keras`, `tensorflow`, `sklearn`, `statsmodels`, `pymc3`
- Distributed/big-data computing: `ray`, `spark`
- General: `numpy`, `pandas`, `scipy`

SELECTED PROJECTS

Unsupervised Learning of Solutions to Differential Equations with Generative Adversarial Networks

- Researched and developed novel unsupervised generative adversarial network training algorithm leading to orders of magnitude higher accuracy over traditional deep learning approaches for solving differential equations; paper published on arXiv

Differentiable Neural Architecture Search for Scientific Datasets

- Applied differentiable neural architecture search to scientific datasets (graphene cutting, galaxy zoo, chest x-rays); results documented in a blog post

Interpretable Reinforcement Learning for Healthcare with Decision Sets

- Applied imitation learning and decision sets to learn explicitly interpretable policies for sepsis treatment; results achieved performance parity with black-box models

CERTIFICATES

EdX

- Software Development Fundamentals (in progress)

Coursera

- Divide and Conquer, Sorting and Searching, and Randomized Algorithms (ZQ5K6VY43UN5)
- Graph Search, Shortest Paths, and Data Structures (ERUDV3QR9773)

AWARDS

Harvard University Cambridge, MA
Graduate Student *2018-2020*

- Scholarship in Applied Computation: $20,000 scholarship for research in data science
- Special Distinction in Teaching: Recognition for exemplary teaching and leadership

University of California, Berkeley Berkeley, CA
Undergraduate Student *2012-2016*

- High Honors at Graduation: Top 10% in College of Engineering at graduation
- Dean's Honors: Top 10% in College of Engineering in each semester
- Frank Kraft Award: Perfect (4.0) GPA after freshman year