DYLAN LABATT RANDLE

Website: dylanrandle.github.io ◇ LinkedIn: dylanrandle ◇ GitHub: dylanrandle

EDUCATION

Harvard University — Cambridge, MA
M.S. Data Science — *May 2020*
Applied Computation Scholarship, Special Distinction in Teaching
Thesis: Unsupervised Neural Network Methods for Solving Differential Equations

University of California, Berkeley — Berkeley, CA
B.S. Industrial Engineering & Operations Research — *May 2016*
High Honors, Dean's Honors, Frank Kraft Award
Coursework: Statistics, Optimization, Stochastic Processes, Simulation, Decision Analysis

RELEVANT WORK EXPERIENCE

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

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

Amazon Robotics — North Reading, MA
Data Scientist, Intern — *Jun 2019 - Aug 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, Inc. — Toronto, Canada
Data Scientist — *Jan 2017 - Jul 2018*

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

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

· Introduction to Data Science (boosting, deep learning); Computing Foundations for Computational Science (AWS, Hadoop, Spark)
· Special Distinction in Teaching

BMO Capital Markets — Toronto, Canada
Financial Products Analyst — *May 2014 - Aug 2014*

· Delta-hedging frequency optimization algorithm for interest rate swaps/swaptions
· Analysis uncovered market opportunities for fixed-income derivatives traders

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

Differentiable Neural Architecture Search for Scientific Datasets

· Applied differentiable neural architecture search to scientific datasets (graphene cutting, galaxy zoo, chest x-rays); documented results and provided practical recommendations in 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

For a complete portfolio of my work see: `dylanrandle.github.io`

TECHNICAL SKILLS

Languages	Python (Pandas, Numpy, Scipy, Scikit-Learn, Pytorch)
Tools	AWS, Ray, Spark, Docker, Git
Topics	Machine/deep learning, statistical modeling/inference, optimization

LEADERSHIP EXPERIENCE

Treasurer	Harvard Graduate Canadian Club
Vice President	Berkeley Industrial Engineering Honors Society

ADDITIONAL WORK EXPERIENCE

Taylor Statten Camps — Algonquin Park, Canada
Canoe Trip Guide — *Summers 2015, 2016*

· Co-leader of 36 and 50-day canoe trips through remote Canadian/American wilderness
· Navigated ∼3000 km of rugged landscape by canoe and portage