Dylan Labatt Randle

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SUMMARY

Machine learning scientist and leader with 5+ years experience and a proven track record building and deploying AI systems for robotics, computer vision, and natural language processing.



EXPERIENCE

Senior Data Scientist, Machine Learning

Amazon Robotics

North Reading, MA, USA Jul 2020 – Present

- Led a team of scientists developing AI systems for robotic manipulation and path planning
- Delivered performance improvements of +35% and cost savings of \$10 million/year
- Named inventor on two patents

Data Scientist, Machine Learning

Hubdoc

Toronto, ON, Canada Feb 2017 – Jul 2018

- First machine learning engineer at the startup company (acquired for \$70MM USD)
- Developed machine learning system for natural language processing of financial documents
- Deployed to production with 99% precision at 95% recall, while reducing extraction time by 99.99%

EDUCATION

Harvard University

Master of Science in Data Science (GPA: 4.0)

Cambridge, MA, USA Aug 2018 – May 2020

- Thesis: "Unsupervised Neural Network Methods for Solving Differential Equations"
- Recipient of Scholarship in Applied Computation
- · Recognized with Distinction in Teaching

University of California, Berkeley

Bachelor of Science in Industrial Engineering & Operations Research (GPA: 3.9)

Berkeley, CA, USA Aug 2012 – May 2016

- Recognized with High Honors (magna cum laude)
- Recipient of Frank Kraft Award
- Inducted into Phi Beta Kappa, Tau Beta Pi, Alpha Pi Mu

SAMPLE PROJECTS

- **Grasp Learning for Robotic Item Manipulation:** Developed ViT and PointNet models for learned grasp generation and ranking. Deployed to production with 36% reduction in grasp failures.
- **Computer Vision for Robotic Damage Detection:** Developed ResNet-based visual anomaly detection model for damage detection. Achieved +25% improvement in performance in offline testing.
- **Simulation-Based Optimization for Robotic Path Planning:** Developed simulation-based optimizer for path planning on fleets of thousands of mobile robots. Achieved +10% improvement in robotic system throughput. Paper published at internal conference.
- Physics-Informed Neural Networks for Solving Differential Equations: Developed generative adversarial networks for solving differential equations. Achieved orders of magnitude reduction in solution error over classical approaches. Paper published at ICML 2022 workshop.

TECHNICAL SKILLS

- Languages: Python, C++, Javascript/Typescript, SQL
- Libraries: PyTorch, Keras/Tensorflow, OpenCV, Open3D, Pandas, NumPy, SciPy, Scikit-Learn, React
- Platforms: AWS, Docker, Firebase, Linux, MacOS