Dylan L Randle

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SUMMARY

Artificial intelligence (AI) and machine learning (ML) leader, scientist, and engineer with 5+ years experience and proven track record building and deploying AI/ML systems for robotics, computer vision (CV), and natural language processing (NLP).



EXPERIENCE

Amazon Robotics

North Reading, MA, USA Apr 2024 – Present

Senior Applied Scientist

- Developed closed-loop AI policy learning systems for dexterous bimanual robotic manipulation using imitation and reinforcement learning
- Demonstrated capabilities to Jeff Bezos, Andy Jassy, and Amazon Board of Directors

Senior Data Scientist Apr 2023 – Apr 2024

- Developed AI/ML systems for robotic manipulation (grasp generation, damage prediction, box packing)
- Delivered performance improvements of +35% and savings of \$10 million/year

Data Scientist II Jul 2020 – Apr 2023

- Developed ML-based path planning optimization system for large-scale mobile robot fleets
- Published paper demonstrating +15% throughput improvement and potential \$150 million/year savings

Data Scientist I Jun 2019 – Aug 2019

- Developed AutoML system for training, evaluating, and interpreting ML models trained on trillion-row robotics datasets
- Used by multiple scientists to speed up research and analysis workflows

HubdocData Scientist

Toronto, ON, Canada
Feb 2017 – Jul 2018

- Started and led ML team from ideation to \$70 million USD acquisition
- Developed ML-based NLP system for automated data extraction from financial documents
- Reduced data extraction time from hours to seconds

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"
- · Recognized with Scholarship in Applied Computation and Distinction in Teaching
- · Research and coursework focused on machine learning

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) and Frank Kraft Award
- Inducted into Phi Beta Kappa, Tau Beta Pi, Alpha Pi Mu
- · Coursework focused on statistics and optimization

PUBLICATIONS

- Demonstrating Multi-Suction Item Picking at Scale via Multi-Modal Learning of Pick Success. C Wang, J van Baar, C Mitash, S Li, D Randle, W Wang, S Sontakke, K E Bekris, K Katyal. RSS 2025.
- MuST: Multi-Head Skill Transformer for Long-Horizon Dexterous Manipulation with Skill Progress. K Gao, F Wang, E Aduh, D Randle, J Shi. ICRA 2024.
- Learning Object Properties Using Robot Proprioception via Differentiable Robot-Object Interaction. PY Chen, C Liu, P Ma, J Eastman, D Rus, D Randle, Y Ivanov, W Matusik. ICRA 2024.
- Avoiding Object Damage in Robotic Manipulation. E Aduh, F Wang, D Randle, K Wang, P Shah, C Mitash, M Nambi. IROS 2024.
- **DEQGAN: Learning the Loss Function for PINNs with Generative Adversarial Networks.** B Bullwinkel*, **D Randle***, P Protopapas, D Sondak. ICML 2022, AI for Science. *Equal contribution.

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