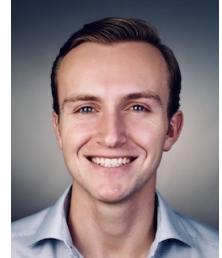


# Dylan L Randle

[Website](#) • [LinkedIn](#) • [GitHub](#) • [Scholar](#)



## SUMMARY

Artificial intelligence (AI) and machine learning (ML) technical leader, scientist, and engineer with 7+ 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

Senior Applied Scientist

North Reading, MA, USA

Apr 2024 – Present

- Tech lead for closed-loop imitation and reinforcement learning systems for dexterous bimanual manipulation.
- Delivered Amazon's first bimanual manipulation policies, achieving a 92% success rate on unseen items. Technology demonstrated to Jeff Bezos, Andy Jassy, and the Board of Directors.

Senior Data Scientist

Apr 2023 – Apr 2024

- Developed production ML systems for robotic manipulation (grasp generation, damage prediction, box packing).
- Deployed first learned action model for Amazon's [Sparrow](#) robot. Delivered performance improvements of +35% and savings of \$10 million/year.

Data Scientist II

Jul 2020 – Apr 2023

- Developed ML path planning optimization system for large-scale mobile robot fleets.
- Published research demonstrating a 15% throughput increase, identifying \$150 million in annualized efficiency gains for mobile robot fleets.

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.

### Hubdoc

Data 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 unstructured 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

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- **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.
- **Unsupervised Learning of Solutions to Differential Equations with Generative Adversarial Networks.** **D Randle**, P Protopapas, D Sondak. arXiv:2007.11133, 2020.
- **Unsupervised Neural Network Methods for Solving Differential Equations.** **D Randle**. Master's Thesis, Harvard University, 2020.

## PROJECTS

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- **Rubik's Cube Solving Robot:** A robot that autonomously solves a Rubik's cube in under 3 seconds. Leverages integrated perception to inspect the cube, Kociemba's algorithm to plan a solution, and stepper motors to solve it. Demo available on my [website](#).

## TECHNICAL SKILLS

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