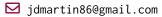
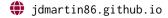
John D. Martin





Education

2015 – 2021 Ph.D. Mechanical Engineering Stevens Institute of Technology.

Advisor: Brendan Englot

Thesis: Reinforcement Learning Algorithms for Representing and Managing Uncertainty in Robotics.

2013 – 2015 M.Sc. Computer Science (Incomplete) Columbia University.

2009 – 2012 **B.S. Physics & Aerospace Engineering** University of Maryland.

Publications

Articles

- B. Burega, **J. D. Martin**, and M. Bowling, "Learning to prioritize planning updates in model-based reinforcement learning," *NeurIPS Workshop on Meta Learning*, 2022.
- J. D. Martin, "Time to take embodiment seriously," RLDM RL as Agency Workshop (Oral), 2022.
- **J. D. Martin**, M. Bowling, D. Abel, and W. Dabney, "Settling the reward hypothesis," *arXiv preprint arXiv:2212.10420*, 2022.
- **J. D. Martin**, P. Szenher, X. Lin, and B. Englot, "The stochastic road network environment for robust reinforcement learning," *ICRA Workshop on Releasing Robots into the Wild*, 2022.
- E. Saleh, **J. D. Martin**, A. Koop, A. Pourzarabi, and M. Bowling, "Should models be accurate?" *arXiv preprint arXiv:2205.10736*, 2022.
- **J. D. Martin** and J. Modayil, "Adapting the function approximation architecture in online reinforcement learning," *arXiv* preprint *arXiv*:2106.09776, 2021.
- W. Fedus, D. Ghosh, **J. D. Martin**, M. G. Bellemare, Y. Bengio, and H. Larochelle, "On catastrophic interference in atari 2600 games," *arXiv preprint arXiv:2002.12499*, 2020.

Conference Papers

- F. Chen, **J. D. Martin**, Y. Huang, J. Wang, and B. Englot, "Autonomous exploration under uncertainty via deep reinforcement learning on graphs," in 2020 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), IEEE, pp. 6140–6147.
- **J. D. Martin**, K. Doherty, C. Cyr, B. Englot, and J. Leonard, "Variational filtering with copula models for slam," in 2020 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), IEEE, pp. 5066–5073.
- J. McConnell, **J. D. Martin**, and B. Englot, "Fusing concurrent orthogonal wide-aperture sonar images for dense underwater 3d reconstruction," in 2020 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), IEEE, pp. 1653–1660.
- **J. D. Martin**, M. Lyskawinski, X. Li, and B. Englot, "Stochastically dominant distributional reinforcement learning," in *International Conference on Machine Learning*, PMLR, 2020, pp. 6745–6754.
- **J. D. Martin**, J. Wang, and B. Englot, "Sparse gaussian process temporal difference learning for marine robot navigation," in *Conference on Robot Learning*, PMLR, 2018, pp. 179–189.
- **J. D. Martin** and B. Englot, "Extending model-based policy gradients for robots in heteroscedastic environments," in *Conference on Robot Learning*, PMLR, 2017, pp. 438–447.

Employment History

2022 - · · · Research Scientist, Intel Labs.

Advisor: Michael Bowling

Summer 2020 Research Scientist Intern, DeepMind.

Advisor: Joseph Modayil

2019 – 2020 Student Researcher / Research Scientist Intern, Google AI.

Advisor: Marc G. Bellemare

2017 – 2019 **Engineering Consultant,** Piasecki Aircraft.

2012 – 2015 Robotics and Flight Controls Engineer, Sikorsky Aircraft.

Teaching Experience

Primary Instructor

Winter 2021 Reinforcement Learning Lecture Series, Nepal Applied Mathematics and Informatics Institute.

Guest Lecturer

2020

Advanced Robotics, Stevens Institute of Tecnhology.

Advanced Robotics, Stevens Institute of Technology.

Advanced Robotics, Stevens Institute of Tecnhology.

Invited Talks

Learning to Prioritize Planning Updates in Model-based Reinforcement Learning.

University of Massachusetts, Amherst

2021 Adapting the Function Approximation Architecture in Online Reinforcement Learning.

Google AI, Sparsity Reading Group

2020 Uncertainty, Perception, and Their Lessons for Creating General-purpose Robots.

University of California, Berkeley

From Tasks to Timescales: A path to generalization in reinforcement learning.

Massachusetts Institute of Technology

DeepMind, Edmonton

Google Robotics, New York

2014 Sikorsky R& D: Motion Planning for Autonomous Rotorcraft.

Stevens Institute of Technology

Academic Service

Masters Thesis Advising

2022 - · · · Bradley Burega, University of Alberta, co-advise with Michael Bowling.

Fatima Davelouis, University of Alberta, co-advise with Michael Bowling.

Workflow Chair

2022 AAAI.

Program Chair

NAAMII Winter AI School.

Academic Service (continued)

2020 ICML Reinforcment Learning Social.

Program Committee

2021 | ICLR.

2020-2022 NeurIPS.

2020-2021 **ICML**.

2019 AAAI.

CoRL.

2020 **WAFR**.

2019 **RAL**.

2018–2020 | ICRA.

2017 | IROS.

2020 **JOE**.

Mentor

Neuromatch Academy.

NeurIPS New in ML Workshop.

Skills

Languages | English, Nepalese.

Coding Python, C, C++, R, LaTeX, OCaml, ...

Libraries AX, Haiku, Tensorflow, Pandas, NumPy.

Miscellaneous Experience

Awards and Achievements

2019 – 2020 Robert Brooks Stanley Doctoral Fellow, Two-time recipient.

2015 Department of Homeland Security Doctoral Fellow.

Howard Hughes Award, American Helicopter Society.

References

Available on Request