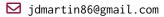
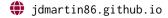
# John D. Martin





### **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**

- **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," (In Preparation), 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.

2021 – 2022 Postdoctoral Fellow, University of Alberta, Department of Computing Science.

Advisor: Michael Bowling

# **Employment History (continued)**

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**

Advanced Robotics, Stevens Institute of Tecnhology.

2020 Advanced Robotics, Stevens Institute of Tecnhology.

2017 Advanced Robotics, Stevens Institute of Tecnhology.

### **Invited Talks**

2021

Learning to Prioritize Planning Updates in Model-based Reinforcement Learning.
University of Massachusetts, Amherst

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.

2020 ICML Reinforcment Learning Social.

# **Academic Service (continued)**

## **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.

2020 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