

# Brahma S. Pavse

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CONTACT *Email:* pavse@wisc.edu  
INFORMATION *Webpage:* brahmasp.github.io

EDUCATION **University of Wisconsin - Madison** (Spring 2022 -)  
• Ph.D. in Computer Science.  
• Interests: Reinforcement learning, sequential decision-making.  
• Advisor: Josiah Hanna.

**The University of Texas at Austin** (2015 - 2020)  
• M.S. in Computer Science.  
• Thesis: Reducing Sampling Error in Batch Temporal Difference Learning.  
• Committee: Peter Stone (advisor), Scott Niekum.

  

• B.S. in Computer Science.  
• Thesis: Reinforced Inverse Dynamics Modeling for Learning from a Single Observed Demonstration.  
• Committee: Peter Stone (advisor), Scott Niekum, Robert van de Geijn.  
• Honors and Special Departmental Honors for Research.

PUBLICATIONS  
(\* = CONTRIBUTION)

## Journal Articles

1. **Brahma S. Pavse\***, Faraz Torabi\*, Josiah P. Hanna, Garrett Warnell, Peter Stone. RIDM: Reinforced Inverse Dynamics Modeling for Learning From a Single Observed Demonstration. IEEE Robotics and Automation Letters, July 2020. **2nd place in the RoboCup 3D Sim Scientific Challenge 2019.**

## Peer-reviewed Conference Papers

2. **Brahma S. Pavse\***, Faraz Torabi\*, Josiah P. Hanna, Garrett Warnell, Peter Stone. RIDM: Reinforced Inverse Dynamics Modeling for Learning From a Single Observed Demonstration. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), October 2020. **2nd place in the RoboCup 3D Sim Scientific Challenge 2019.**
1. **Brahma S. Pavse**, Ishan Durugkar, Josiah P. Hanna, and Peter Stone. Reducing Sampling Error in Batch Temporal Difference Learning. International Conference on Machine Learning (ICML), July 2020.

## Peer-reviewed Workshop Papers

1. **Brahma S. Pavse**, Josiah P. Hanna, Ishan Durugkar, and Peter Stone. On Sampling Error in Batch Action-Value Prediction Algorithms. Workshop on Offline Reinforcement Learning, Neural Information Processing Systems (NeurIPS), December 2020.

## Book Chapters

2. Patrick MacAlpine, Faraz Torabi, **Brahma Pavse**, and Peter Stone. UT Austin Villa: RoboCup 2019 3D Simulation League Competition and Technical Challenge Champions. In RoboCup 2019: Robot World Cup XXIII, Lecture Notes in Artificial Intelligence, Springer, 2019.

1. Patrick MacAlpine, Faraz Torabi, **Brahma Pavse**, John Sigmon, and Peter Stone. UT Austin Villa: RoboCup 2018 3D Simulation League Champions. In RoboCup 2018: Robot Soccer World Cup XXII, Lecture Notes in Artificial Intelligence, Springer, 2019.

PROFESSIONAL EXPERIENCE	<b>Salesforce.com</b> , San Francisco, CA, USA Software Engineer — Database Optimization team	<b>Aug. 2020 - Jan. 2022</b>
	<b>UT Austin and Bosch</b> , Austin, TX, USA Autonomous Driving Research Scientist Assistant	<b>Summer 2020</b>
	<b>Salesforce.com</b> , San Francisco, CA, USA Data Science Intern — Database Optimization team	<b>Summer 2019</b>
	<b>Salesforce.com</b> , San Francisco, CA, USA Software Engineering Intern — Database Optimization team	<b>Summer 2018</b>
	<b>Salesforce.com</b> , San Francisco, CA, USA Software Engineering Intern — Communities Cloud team	<b>Summer 2017</b>
	<b>SAS Institute</b> , Cary, NC, USA Software Engineering Intern — Data Management team	<b>Summer 2016</b>
TEACHING EXPERIENCE	<b>University of Texas at Austin</b> , Austin, TX, USA Teaching Assistant — Data Structures — Rating: 4.5/5.0	<b>Fall 2016</b>
AWARDS AND HONORS	<ul style="list-style-type: none"> <li>• UW Madison CS Summer Research Fellowship Award (2022).</li> <li>• UW Madison CS Graduate Scholarship (2022).</li> <li>• UT Austin University Honors (2020).</li> <li>• UT Austin CS Special Departmental Honors (Research) (2020).</li> <li>• Bosch + UT Austin Summer Research Funding (2020).</li> <li>• Eva Stevenson Woods Endowed Presidential Scholarship (2019).</li> <li>• National Instruments Endowed Scholarship (2019).</li> <li>• RoboCup 3D Simulation League World Champions (2019).</li> <li>• RoboCup 3D Simulation Technical Challenge World Champions (2019).</li> <li>• RoboCup 3D Simulation League World Champions (2018).</li> <li>• RoboCup 3D Simulation Technical Challenge 3rd Place (2018).</li> <li>• RoboCup 3D Simulation Asia Pacific Champions (2018).</li> <li>• UT Austin College Scholar (2015-2019).</li> </ul>	
SERVICE	<ul style="list-style-type: none"> <li>• Program Committee Member, Association for the Advancement of Artificial Intelligence (AAAI) (2023).</li> <li>• Graduate Student Mentor, Wisconsin Science and Computing Emerging Research Stars (WISCERS) (2022).</li> <li>• Reviewer, Neural Information Processing Systems (NeurIPS) 2022.</li> <li>• Reviewer, International Conference on Learning Representations (ICLR) 2022.</li> <li>• Reviewer, International Conference on Robotics and Automation (ICRA) 2021.</li> <li>• Reviewer, UT Austin Computer Science Dept. MS Admissions Committee 2020.</li> </ul>	

MENTORING	<b>UW Madison Undergraduates</b> <ul style="list-style-type: none"> <li>• Adhit Sankaran (2022).</li> </ul>
RELEVANT COURSEWORK	<b>UW Madison Graduate</b> <ul style="list-style-type: none"> <li>• Mathematical Foundations of Machine Learning (Robert Nowak)</li> </ul> <b>UT Austin Graduate</b> <ul style="list-style-type: none"> <li>• Reinforcement Learning: Theory and Practice (Peter Stone and Scott Niekum)</li> <li>• Autonomous Robots (Peter Stone)</li> <li>• Machine Learning (Dana Ballard)</li> <li>• Geometric Foundations of Data Sciences (Chandrajit Bajaj)</li> </ul> <b>UT Austin Undergraduate</b> <ul style="list-style-type: none"> <li>• Honors Artificial Intelligence (Peter Stone)</li> <li>• Computer Vision/Machine Learning (Kristen Grauman)</li> <li>• Honors Data Mining (Adam Klivans)</li> <li>• Stochastic Processes (Stephen Walker)</li> </ul>
PERSONAL DETAILS	<ul style="list-style-type: none"> <li>• Citizenship: USA</li> </ul>