# Dorsa Sadigh

Contact 142 Gates Computer Science Building 353 Jane Stanford Way, Stanford, CA 94305 +1 (949) 929-3559 https://dorsa.fyi https://github.com/Stanford-ILIAD dorsa@cs.stanford.edu Research Robotics, Human-Robot Interaction, Control Theory, Formal Methods **Interests** Current Stanford University September 2017 - present Position Assistant Professor Department of Computer Science and Department of Electrical Engineering Education University of California, Berkeley 2017 Ph.D. in Electrical Engineering and Computer Sciences Advisors: Sanjit Seshia and Shankar Sastry Thesis: Safe and Interactive Autonomy: Control, Learning, and Verification University of California, Berkeley 2012 B.S. in Electrical Engineering and Computer Sciences Selected AFOSR Young Investigator Program Award 2020 Honors & Best Paper Award 2020 Awards Conference on Robot Learning (CoRL) for "Learning Latent Representations to Influence Multi-Agent Interaction" Best Student Paper Award (Finalist) 2020 Robotics: Science and Systems (RSS) for "Shared Autonomy with Learned Latent Actions" **IEEE TC-CPS Early Career Award** 2020 Best Paper Award (Honorable Mention) 2020 ACM/IEEE International Conference on Human-Robot Interaction (HRI) for "When Humans Aren't Optimal: Robots that Collaborate with Risk-Aware Humans" National Science Foundation CAREER Award 2020 Gilbreth Lecturer at National Academy of Engineering 2020 Google Faculty Research Award 2020 Amazon Research Award 2019 Best Paper Award (Finalist) 2019

European Control Conference (ECC), for "Human-Robot Interaction for Truck Pla-

tooning Using Hierarchical Dynamic Games"

## Best Paper Award

2019

ICML Workshop on Adaptive & Multitask Learning: Algorithms & Systems, for "Continual Adaptation for Efficient Machine Communication"

## Best Cognitive Robotics Paper (Finalist)

2016

IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) for "Information Gathering Actions over Human Internal State"

## Leon O. Chua Award

2016

for excellence in non-linear science, EECS Department, UC Berkeley 2016

## Google Anita Borg Scholarship

2016

National Defense Science and Engineering Graduate Fellowship 2013

National Science Foundation Graduate Research Fellowship

CRA Outstanding Undergraduate Researcher Award

2012

2013

Arthur M. Hopkin Award

2010

EECS Department, UC Berkeley

## Teaching

## CS 237B: Robot Autonomy II

Winter 2020, 2021

Instructor, Stanford University.

CS 221: Artificial Intelligence

Spring 2018, 2019, Fall 2019, 2020

Instructor, Stanford University.

# CS 521: Seminar on AI Safety

Spring 2018, 2020

Instructor, Stanford University.

## CS 333: Safe and Interactive Robotics

Fall 2017, 2018

Instructor, Stanford University.

# Advising & Mentoring

## **Current Graduate Students**

Erdem Bıyık, Minae Kwon, Malayandi Palaniappan (co-advised with Stephen Boyd), Mengxi Li (co-advised with Jeannette Bohg), Zhangjie Cao, Siddhartha Karamcheti (co-advised with Percy Liang), Andy Shih (co-advised with Stefano Ermon)

## Past Postdoctoral Students

Dylan Losey (Faculty at Virginia Tech)

#### Past Undergraduate Students

Nick Landolfi (Ph.D. student in CS at Stanford), Zhiyang He (Ph.D. student in EECS at UC Berkeley), Zheqing Zhu (Ph.D. student in MS&E at Stanford)

#### Outreach

## Stanford CS Mentorship Program

**2018 - present** 

I have organized the Stanford CS mentorship program, where we connect underrepresented minorities and female undergraduate students interested in AI with Ph.D. students at Stanford to meet monthly and discuss research and career choices.

#### Faculty Mentor for Stanford Robotics Club

**2017** - present

I mentor the Stanford undergraduate Robotics Club. Every year they work towards participating in a robotics competition. They have won the third place in the University Rover Challenge in 2019.

## Faculty Mentor for Inclusion in AI

**2018** - present

I mentor the Stanford AI Lab graduate group "Inclusion in AI". The group holds regular social and networking events for Stanford AI Lab graduate students.

## Talks at Women and Inclusion in STEM events and panels

AI4ALL summer program, Girls Who Code summer program, Gender in Robotics Workshop at Stanford, Berkeley-Stanford Meetup, Rising Stars (EECS) of 2018, Rising Stars (Mechanical Engineering) of 2019, Inclusion in AI.

## Talks at Graduate and Undergraduate Student Groups

Undergrad CS Women (WiCS), Grad Engineering Women (SWE), SAIL (Stanford AI Lab women), Women in Electrical Engineering, Women in Aero/Astro, Fire-Side chat with Stanford Undergrads.

## EEGSA Outreach Member

2012 - 2017

Visiting local K-12 schools and presenting engineering projects and demonstrations.

#### WICSE Outreach Coordinator

2014 - 2015

Organizing events and outreach activities aiming young girls involvements in STEM.

# Work Experience

## Microsoft Research, Redmond

June - August 2015

Internship at the Adaptive Systems and Interaction group with Ashish Kapoor and Eric Horvitz.

## Stanford Research Institute, International

June - August 2013

Internship at the Computer Science Laboratory in the formal methods group with Ashish Tiwari.

# Professional Activities

## Center for AI Safety at Stanford

2018 - present

Founding member of the Center for AI Safety at Stanford along with Mykel Kochenderfer, Clark Barrett, and David Dill. The center is focused on safety and verification issues for AI and machine learning systems.

## **Human-Centered AI Institute**

2018 - present

Member of the design committee of Human-Centered AI Institute at Stanford.

## Program Co-Chair

2018 - 2020

Bay Area Robotics Symposium

#### Program Committee (Associate Editor, Area Chair)

CoRL 2020, RSS 2020, HRI 2020, L4DC 2020, CAV 2019, HSCC 2019, CoRL 2018, ICRA 2018, HSCC Repeatability Eval 2016.

## **Publicity Chair**

HSCC 2021

#### **AAAI ACM SIGAI Dissertation Award Committee**

2020

## Workshop Organizer

Reliable Autonomy for Human-Cyber-Physical Systems at NSF PI meeting, Virginia, 2018

IROS 2016: Perspectives on Analysis and Design of Human-Centered Robotics.

DREAM Seminar Organizer	2015 - 201
https://embedded.eecs.berkeley.edu/seminar/	
External Reviewer for Conferences, Journals, and Control Robotics: RSS, CoRL, WAFR, ICRA, HRI, TASE, ACM - Control Theory: HSCC, CDC, ACC, TCST - Formal Methods: CAV, FM, HVC, VMCAI	
- NSF Proposal Panels	
Keynote – Conference on Robot Learning (CoRL)	
Walking the Boundary of Learning and Interaction	202
NeurIPS Workshop on Robot Learning. – " –.	202
National Canadian Robotics Network (NCRN) Sen	ninar. – " –. 202
Distinguished Voices – National Academies of Scien	nces, Engineering, an
Medicine A Human-Centered Perspective on Interactive Robotics	202
Panelist – AI Ethics conference at Interdisciplinar the Arts, Humanities, and Interpretive Social Scient University	· ·
IPAM workshop on Individual Vehicle Autonomy:	Perception and Con
trol. Interaction-Aware Planning: A Human-Centered Approaching.	toward Autonomous Dri 202
Keynote – 1st Colloquium on AI for Architecture, l struction	Engineering, and Con 202
ICML Workshop on Real-World Experiment Design Active Learning of Robot Reward Functions.	n & Active Learning
RSS Workshop on Interaction and Decision-Making When our Human Modeling Assumptions Fail: Planning, le near-accident driving scenarios.	
RSS Workshop on Power-On-and-Go Robots: Out-or-Real-World Applications.	of-the-Box Systems fo
To Ignore Humans or to Accept them with Open Arms: Chafor Efficient, Robust, and Adaptive POGO Robots.	llenges and Opportuniti 202
RSS Workshop on AI & Its Alternatives in Assis Robotics: Decoding Intent.	stive & Collaborativ
The Role of Learned Representations in Assistive Teleopera	ation. 202
Keynote – 22nd ACM International Conference on F	Hybrid Systems: Con
putation and Control (HSCC). Human-CPS from the Lens of Learning and Control.	202
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Invited Talks

Keynote – Center for Human-Compatible AI Workshop. – " –.	2020	
John Hopkins, Applied Physics Lab Seminar. – " –.	2020	
ICRA Workshop on Long-term Human Motion Prediction. When our Human Modeling Assumptions Fail: The effects of risk, conventions and non-stationarity on long-term human-robot interaction.	2020	
NASA Formal Methods, AI Safety Workshop. Risk-Aware Human Modeling.	2020	
IPAM workshop on Intersections between Control, Learning, and Optimization. Beyond Theory of Mind: Learning & Influencing Conventions.	2020	
Gilbreth Lecture, National Academy of Engineering. Influencing Interactions in Autonomous Driving.	2020	
Keynote – Formal Methods in Computer-Aided Design (FMCAD). A journey about Safety of Autonomous Systems.	2019	
Frontiers of Engineering, National Academy of Engineering. Influencing Interactions in Autonomous Driving.	2019	
RSS 2019 Workshop on Safe Autonomy"	2019	
Learning for Dynamics and Control Workshop. Influencing Interactive Mixed-Autonomy Systems.	2019	
ICML Workshop on AI for Autonomous Driving"	2019	
MIT, Department Seminar. Interactive Autonomy: Learning and Control for Human-Robot Systems.	2019	
University of Washington, Department Seminar"	2019	
Cornell, Department Seminar"	2019	
CalTech, IST Seminar"	2019	
USC, CPS Seminar"	2019	
University of Maryland, Robotics Seminar"	2019	
Theoretical Machine Learning Simons Foundation Workshop. –"–.	2019	
Schloss Dagstuhl on Verification and Synthesis for Human-Robot Interac-		
tion. Reward Functions and Specifications	2019	
NeurIPS workshop on Imitation Learning and its Challenges in Rob Active Learning of Humans' Preferences.	otics. 2018	
UAI workshop on Safety, Risk and Uncertainty in RL"	2018	

UC Berkeley, Center for Human Compatible AI. –"–.	2018
NeurIPS workshop on Machine Learning for Intelligent Transport Systems. Beating Congestion using Autonomous Cars.	rtation 2018
Halmstad University. Reactive Synthesis and Human Modeling for Human-Robot Systems.	2018
University of Washington, Robotics Seminar. Safe and Interactive Ro	obotics
UC Santa Barbara, Robotics Seminar. –"–.	2018
UC Santa Cruz, Robotics Seminar. –"–.	2018
Chinese University of Hong Kong in Shenzhen"	2018
Stanford University, Department Seminar. Towards a Theory of Safe and Interactive Autonomy.	2017
MIT, Department Seminar"	2017
UC Berkeley, Department Seminar"	2017
CMU, Department Seminar"	2017
Princeton, Department Seminar"	2017
USC, Department Seminar"	2017
Cornell, Department Seminar. –"–.	2017
UC San Diego, Department Seminar"	2017
UC Los Angeles, Department Seminar"	2017
University of Michigan, Department Seminar"	2017
UT Austin, Department Seminar"	2017
Georgia Tech, Department Seminar"	2017
University of Pennsylvania, Department Seminar"	2017
Schloss Dagstuhl on Machine Learning and Formal Methods. Planning for Cars that Coordinate with People.	2017
Schloss Dagstuhl on Non-Zero-Sum-Games and Control. Correctness and Control for Human-Cyber-Physical Systems.	2015
Microsoft Research, Redmond. Controller Synthesis for Human-in-the-Loop Systems	2014
[54] Erdem Bıyık, Dylan Losey, Malayandi Palan, Nick Landolfi, Gleb Sh	evchuk

- Dorsa Sadigh. Learning Reward Functions from Diverse Sources of Human Feedback: Optimally Integrating Demonstrations and Preferences. Submitted to The International Journal of Robotics Research (IJRR).
- [53] Erdem Bıyık, Daniel A. Lazar, Ramtin Pedarsani, Dorsa Sadigh. Incentivizing Efficient Equilibria in Traffic Networks with Mixed Autonomy. Submitted to IEEE Transactions on Control of Network Systems (TCNS).
- [52] Hadas Kress-Gazit, Kerstin Eder, Guy Hoffman, Henny Admoni, Brenna Argall, Ruediger Ehlers, Christoffer Heckman, Nils Jansen, Ross Knepper, Jan Kretinsky, Shelly Levy-Tzedek, Jamy Li, Todd Murphey, Laurel Riek, Dorsa Sadigh. Formalizing and Guaranteeing\* Human-Robot Interaction. *Communications of the ACM*, 2020.
- [51] Annie Xie, Dylan Losey, Ryan Tolsma, Chelsea Finn, Dorsa Sadigh. Learning Latent Representations to Influence Multi-Agent Interaction. *Proceedings of the 4th Conference on Robot Learning (CoRL)*, November 2020. (Best Paper Award)
- [50] Robert X. D. Hawkins, Minae Kwon, Dorsa Sadigh, Noah D. Goodman. Continual Adaptation for Efficient Machine Communication. The 24th Conference on Computational Natural Language Learning (CoNLL), November 2020.
- [49] Mengxi Li, Dylan Losey, Jeannette Bohg, Dorsa Sadigh. Learning User-Preferred Mappings for Intuitive Robot Control. *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, October 2020.
- [48] Zheqing Zhu, Erdem Bıyık, Dorsa Sadigh. Multi-Agent Safe Planning with Gaussian Processes. Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), October 2020.
- [47] Jonathan Mern, Dorsa Sadigh, Mykel Kochenderfer. Object Exchangability in Reinforcement Learning. 2020 American Control Conference (ACC), July 2020.
- [46] Hong Jun Jeon, Dylan Losey, Dorsa Sadigh. Shared Autonomy with Learned Latent Actions. Robotics: Science and Systems (RSS), June 2020. (Best Student Paper Award, Finalist)
- [45] Erdem Bıyık, Nicolas Huynh, Mykel Kochenderfer, Dorsa Sadigh. Active Preference-Based Gaussian Process Regression for Reward Learning. *Robotics: Science and Systems (RSS)*, June 2020.
- [44] Zhangjie Cao, Erdem Bıyık, Woodrow Wang, Allan Raventos, Adrien Gaidon, Guy Rosman, Dorsa Sadigh. Reinforcement Learning based Control of Imitative Policies for Near-Accident Driving. Robotics: Science and Systems (RSS), June 2020.
- [43] Shushman Choudhury, Jayesh Gupta, Mykel Kochenderfer, Dorsa Sadigh, Jeannette Bohg. Dynamic Multi-Robot Task Allocation under Uncertainty and Temporal Constraints. *Robotics: Science and Systems (RSS)*, June 2020.
- [42] Malayandi Palan, Shane Barratt, Alex McCauley, Dorsa Sadigh, Vikas Sindhwani, Stephen P. Boyd. Fitting a Linear Control Policy to Demonstrations with a Kalman Constraint. 2nd Learning for Dynamics & Control Conference (L4DC), June 2020.

- [41] Minae Kwon, Erdem Bıyık, Aditi Talati, Karan Bhasin, Dylan P. Losey, Dorsa Sadigh. When Humans Aren't Optimal: Robots that Collaborate with Risk-Aware Humans. ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2020. (Best Paper Award, Honorable Mention)
- [40] Yuhang Che, Allison M. Okamura, Dorsa Sadigh. Efficient and Trustworthy Social Navigation Via Explicit and Implicit Robot-Human Communication. *IEEE Transactions on Robotics (TRO)*, 2019.
- [39] Dylan P. Losey, Krishnan Srinivasan, Ajay Mandlekar, Animesh Garg, Dorsa Sadigh. Controlling Assistive Robots with Learned Latent Actions. *International Conference on Robotics and Automation (ICRA)*, May 2020.
- [38] Dylan P. Losey, Mengxi Li, Jeannette Bohg, Dorsa Sadigh. Learning from My Partner's Actions: Roles in Decentralized Robot Teams. Conference on Robot Learning (CoRL), 2019.
- [37] Erdem Bıyık, Malayandi Palan, Nicholas Landolfi, Dylan P. Losey, Dorsa Sadigh. Asking Easy Questions: A User-Friendly Approach to Active Reward Learning. Conference on Robot Learning (CoRL), 2019.
- [36] Dylan P. Losey, Dorsa Sadigh. Robots that Take Advantage of Human Trust. Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), November 2019.
- [35] Chandrayee Basu, Erdem Bıyık, Zhixun He, Mukesh Singhal, Dorsa Sadigh. Active Learning of Reward Dynamics from Hierarchical Queries. *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, November 2019.
- [34] Erdem Bıyık, Daniel A. Lazar, Dorsa Sadigh, Ramtin Pedarsani. The Green Choice: Learning and Influencing Human Decisions on Shared Roads. *Proceedings* of the 58th IEEE Conference on Decision and Control (CDC), December 2019.
- [33] Minae Kwon, Mengxi Li, Alexandre Bucquet, Dorsa Sadigh. Influencing Leading and Following in Human-Robot Teams. Robotics: Science and Systems (RSS), June 2019.
- [32] Malayandi Palan, Gleb Shevchuk, Nicholas C. Landolfi, Dorsa Sadigh. Learning Reward Functions by Integrating Human Demonstrations and Preferences. *Robotics: Science and Systems (RSS)*, June 2019.
- [31] Tianhe Yu, Gleb Shevchuk, Dorsa Sadigh, Chelsea Finn. Unsupervised Visuomotor Control through Distributional Planning Networks. *Robotics: Science and Systems (RSS)*, June 2019.
- [30] Erdem Bıyık, Jonathan Margoliash, Shahrouz Ryan Alimo, Dorsa Sadigh. Efficient and Safe Exploration in Deterministic Markov Decision Processes with Unknown Transition Models. 2019 American Control Conference (ACC), July 2019.
- [29] Elis Stefansson, Jaime Fisac, Dorsa Sadigh, Shankar Sastry, Karl H. Johansson. Human-Robot Interaction for Truck Platooning Using Hierarchical Dynamic Games. European Control Conference (ECC), June 2019. (Best Paper Award, Finalist).

- [28] Ashwini Pokle, Roberto Martin-Martin, Patrick Goebel, Vincent Chow, Hans M. Ewald, Junwei Yang, Zenkai Wang, Amir Sadeghian, Dorsa Sadigh, Silvio Savarese, Marynel Vazquez. Deep Local Trajectory Planning and Control for Robot Navigation. International Conference on Robotics and Automation (ICRA), May 2019.
- [27] Jaime F. Fisac, Eli Bronstein, Elis Stefansson, Dorsa Sadigh, S. Shankar Sastry, Anca D. Dragan. Hierarchical Game-Theoretic Planning for Autonomous Vehicles. *International Conference on Robotics and Automation (ICRA)*, May 2019.
- [26] Erdem Bıyık, Dorsa Sadigh. Batch Active Preference-Based Learning of Reward Functions. Conference on Robot Learning (CoRL), 2018.
- [25] Erdem Bıyık, Daniel A. Lazar, Ramtin Pedarsani, Dorsa Sadigh. Altruistic Autonomy: Beating Congestion on Shared Roads. International Workshop on Algorithmic Foundations of Robotics (WAFR), 2018.
- [24] Daniel Lazar, Kabir Chandrasekher, Ramtin Pedarsani, Dorsa Sadigh. Maximizing Road Capacity Using Cars that Influence People. *IEEE Conference on Decision and Control (CDC)*, 2018.
- [23] Jiaming Song, Hongyu Ren, Dorsa Sadigh, Stefano Ermon. Multi-Agent Generative Adversarial Imitation Learning. Conference on Neural Information Processing Systems (NeurIPS), 2018.
- [22] Dorsa Sadigh, S. Shankar Sastry, Sanjit Seshia. Verifying Robustness of Human-Aware Autonomous Cars . *IFAC conference on Cyber-Physical and Human Systems (CPHS)*, 2018.
- [21] Dorsa Sadigh, Nick Landolfi, S. Shankar Sastry, Sanjit A. Seshia, Anca Dragan. Planning for Autonomous Cars that Leverages Effects on Human Actions. *Invited to Autonomous Robots (AURO)*, 2018.
- [20] Susmit Jha, Vasumathi Raman, Dorsa Sadigh, Sanjit A. Seshia. Safe Autonomy Under Perception Uncertainty Using Chance-Constrained Temporal Logic . *Journal of Automatic Reasoning (JAR)*, 2018.
- [19] Dorsa Sadigh. Safe and Interactive Autonomy: Control, Learning, and Verification. Ph.D. Dissertation. EECS Department, University of California, Berkeley, August 2017.
- [18] Dorsa Sadigh, S. Shankar Sastry, Sanjit Seshia, Anca Dragan. Active Preference-Based Learning of Reward Functions. *Robotics: Science and Systems Conference (RSS)*, July 2017.
- [17] Negar Mehr, Dorsa Sadigh, Roberto Horowitz, S. Shankar Sastry, Sanjit Seshia. Stochastic Predictive Freeway Ramp Metering from Signal Temporal Logic Specifications. American Control Conference (ACC), May 2017.
- [16] Dorsa Sadigh, S. Shankar Sastry, Sanjit Seshia, Anca Dragan. Information Gathering Actions over Human Internal State. *International Conference on Intelligent Robots and Systems (IROS)*, 2016. (Best Paper in Cognitive Robotics Award, Finalist).

- [15] Tara Rezvani, Katherine Driggs-Campbell, Dorsa Sadigh, S. Shankar Sastry, Sanjit Seshia, Ruzena Bajcsy. Towards Trustworthy Automation: User Interfaces that Convey Internal and External Awareness. *IEEE Intelligent Transportation Systems Conference (ITSC)*, November 2016.
- [14] Dorsa Sadigh, S. Shankar Sastry, Sanjit Seshia, Anca Dragan Planning for Autonomous Cars that Leverages Effects on Human Actions. Robotics: Science and Systems Conference (RSS), 2016.
- [13] Dorsa Sadigh, Ashish Kapoor. Safe Control under Uncertainty with Probabilistic Signal Temporal Logic. Robotics: Science and Systems Conference (RSS), 2016.
- [12] Shromona Ghosh, Dorsa Sadigh, Pierluigi Nuzzo, Vasumathi Raman, Alexandre Donze, Alberto Sangiovanni-Vincentelli, S. Shankar Sastry, Sanjit Seshia. Diagnosis and Repair for Synthesis from Signal Temporal Logic Specifications. *Conference on Hybrid Systems: Computation and Control (HSCC)*, 2016.
- [11] Sanjit A. Seshia, Dorsa Sadigh, S. Shankar Sastry. Formal Methods for Semiautonomous Driving. Design and Automation Conference (DAC), 2015.
- [10] Vasumathi Raman, Alexandre Donze, Dorsa Sadigh, Richard M. Murray, Sanjit Seshia. Reactive Synthesis from Signal Temporal Logic Specifications. *Conference on Hybrid Systems: Computation and Control (HSCC)*, 2015.
- [9] Dorsa Sadigh, Eric S. Kim, Samuel Coogan, S. Shankar Sastry, Sanjit Seshia. A Learning Based Approach to Control Synthesis of Markov Decision Processes for Linear Temporal Logic Specifications. *IEEE Conference on Decision and Control (CDC)*, 2014.
- [8] Dorsa Sadigh, Henrik Ohlsson, S. Shankar Sastry, Sanjit Seshia. Robust Subspace System Identification via Weighted Nuclear Norm Optimization. *International Federation of Automatic Control (IFAC)*, 2014.
- [7] Dorsa Sadigh, Katherine Driggs-Campbell, Alberto Puggelli, Wenchao Li, Victor Shia, Ruzena Bajcsy, Alberto Sangiovanni-Vincentelli, Shankar Sastry, and Sanjit Seshia. Data-driven probabilistic modeling and verification of human driver behavior. Formal Verification and Modeling in Human-Machine Systems (AAAI Spring Symposium), 2014.
- [6] Dorsa Sadigh, Katherine Driggs Campbell, Ruzena Bajcsy, S. Shankar Sastry, Sanjit Seshia. User Interface Design and Verification for Semi-autonomous Driving. Conference on High Confidence Networked Systems, 2014.
- [5] Ashish Tiwari, Bruno Dutertre, Dejan Jovanovic, Thomas de Candia, Dorsa Sadigh, Sanjit Seshia. Safety Envelop in Security. Conference on High Confidence Networked Systems (HiCoNS), 2014.
- [4] Wenchao Li, Dorsa Sadigh, S. Shankar Sastry, Sanjit Seshia. Synthesis for Human-in-the-Loop Control Systems. Tools and Algorithms for the Construction and Analysis of Systems (TACAS), 2014.
- [3] Dorsa Sadigh, Sanjit Seshia and Mona Gupta. Automating Exercise Generation: A Step towards Meeting the MOOC Challenge for Embedded Systems. Workshop on Embedded Systems Education, 2012.

- [2] Orna Kupferman, Dorsa Sadigh, and Sanjit A. Seshia. Synthesis with Clairvoyance. Haifa Verification Conference (HVC), 2011.
- [1] Jonathan Kotker, Dorsa Sadigh, and Sanjit A. Seshia. Timing Analysis of Interrupt-Driven Programs under Context Bounds. Formal Methods in Computer Aided Design (FMCAD), 2011.

# Technical Reports & Workshop Papers

- [7] Mark Beliaev, Woodrow Z. Wang, Daniel A. Lazar, Erdem Bıyık, Dorsa Sadigh, Ramtin Pedarsani. Emergent Correlated Equilibrium through Synchronized Exploration. RSS 2020 Workshop on Emergent Behaviors in Human-Robot Systems, 2020.
- [6] Kawin Ethayarajh, Dorsa Sadigh. BLEU Neighbors: A Reference-less Approach to Automatic Evaluation. 1st Workshop on Evaluation and Comparison for NLP systems (Eval4NLP), 2020.
- [5] Siddharth Karamcheti, Dorsa Sadigh and Percy Liang. Continual Learning Adaptive Language Interfaces through Decomposition. *Proceedings of the EMNLP Workshop on Interactive and Executable Semantic Parsing*, 2020.
- [4] Robert X. D. Hawkins, Minae Kwon, Dorsa Sadigh, Noah D. Goodman. Continual Adaptation for Efficient Machine Communication. *Proceedings of the ICML Workshop on Adaptive & Multitask Learning: Algorithms & Systems, June 2019.* (Best Paper Award).
- [3] Jiaming Song, Hongyu, Ren, Dorsa Sadigh, Stefano Ermon. Multi-Agent Generative Adversarial Imitation Learning. *International Conference on Learning Representations (ICLR)*, Workshop Track, April 2018.
- [2] Sanjit Seshia, Dorsa Sadigh, S. Shankar Sastry. Towards Verified Artificial Intelligence. Technical Report, July 2016.
- [1] Debadeepta Dey, Dorsa Sadigh, Ashish Kapoor. Fast Safe Mission Plans for Autonomous Vehicles. *Proceedings of Robotics: Science and Systems Workshop, June* 2016.

## Dissertation

Dorsa Sadigh. Safe and Interactive Autonomy: Control, Learning, and Verification. Ph.D. Dissertation; EECS Department, University of California, Berkeley, August 2017.