

EDUCATION	<p>Ph.D. in Computer Science Harvard University 08/2020 - 05/2026 (<i>expected</i>)</p> <ul style="list-style-type: none">• Advisor: Prof. Susan A. Murphy• Research area: Bayesian Reinforcement Learning in Healthcare <p>M.S. and B.Tech (Hons.) in Computer Science IIIT Hyderabad 2015 - 2019</p> <ul style="list-style-type: none">• GPA: 9.29/10.00, Rank: 1.
EXPERIENCE	<p>Research Engineer Singapore Management University 09/2019 - 12/2020</p> <ul style="list-style-type: none">• Built AI-based prediction models to identify areas with high risk of human-wildlife conflicts – currently used in Maharashtra, India.• Worked on game theory based defenses for adversarial ML attacks. <p>Research Intern TCS Innovation Labs, Hyderabad, India 05/2018 - 07/2018</p> <ul style="list-style-type: none">• Developed trading algorithms for an autonomous trading agent in the energy market. <p>Research Intern TCS Innovation Labs, Hyderabad, India 05/2017 - 07/2017</p> <ul style="list-style-type: none">• Developed a power trading agent using PowerTAC testbed. <p>Google Summer of Code LibreOffice 05/2016 - 09/2016</p> <ul style="list-style-type: none">• Developed 7 panels and 3 decks in the sidebar for the LibreOffice suite (released in LibreOffice v5.3)
PUBLICATIONS	<ol style="list-style-type: none">1. Susobhan Ghosh*, Anna Trella*, Erin Bonar, Lara Coughlin, Finale Doshi-Velez, Yongyi Guo, Pei-Yao Hung, Inbal Nahum-Shani, Vivek Shetty, Maureen Walton, Iris Yan, Kelly Zhang, Susan Murphy. Effective Monitoring of Online Decision-Making Algorithms in Digital Intervention Implementation. <i>Under Review</i>, 2024.2. Susobhan Ghosh, Yongyi Guo, Pei-Yao Hung, Lara Coughlin, Erin Bonar, Inbal Nahum-Shani, Maureen Walton, Susan Murphy. reBandit: Random Effects based Online RL algorithm for Reducing Cannabis Use. <i>International Joint Conference on Artificial Intelligence (IJCAI)</i>, 2024.3. Susobhan Ghosh*, Raphael Kim*, Prasidh Chhabria, Raaz Dwivedi, Predrag Klasnja, Peng Liao, Kelly Zhang, Susan Murphy. Did we personalize? Assessing personalization by an online reinforcement learning algorithm using resampling. <i>Machine Learning Journal</i>, 2024.4. Lara Coughlin, Maya Campbell, Tiffany Wheeler, Chavez Rodriguez, Autumn Rae Florimbio, Susobhan Ghosh, Yongyi Guo, Pei-Yao Hung, Mark Newman, Huijie Pan, Kelly Zhang, Lauren Zimmermann, Erin Bonar, Maureen Walton, Susan Murphy, Inbal Nahum-Shani. A mobile health intervention for emerging adults with regular cannabis use: A micro-randomized pilot trial design protocol. <i>Contemporary Clinical Trials</i>, 2024.5. Sanjay Chandekar, Bala Suraj Pedasingu, Susobhan Ghosh, Easwar Subramanian, Sanjay Bhat, Praveen Paruchuri, Sujit Gujar. VidyutVanika: AI-Based Autonomous Broker for Smart Grids: From Theory to Practice. <i>Energy Sustainability through Retail Electricity Markets, Applied Innovation and Technology Management Book Series</i>, 2023.6. Arpita Biswas, Jackson Killian, Paula Diaz, Susobhan Ghosh, Milind Tambe. Fairness for Workers Who Pull the Arms: An Index Based Policy for Allocation of Restless Bandit Tasks. <i>International Conference on Autonomous Agents and Multiagent Systems (AA-MAS)</i>, 2023.7. Aditya Mate, Arpita Biswas, Christoph Siebenbrunner, Susobhan Ghosh, Milind Tambe. Efficient Algorithms for Finite Horizon and Streaming Restless Multi-Armed Bandit Problems. <i>International Conference on Autonomous Agents and Multiagent Systems (AA-MAS)</i>, 2022.

8. **Susobhan Ghosh**, Pradeep Varakantham, Aniket Bhatkhande, Tamanna Ahmad, Anish Andheria, Wenjun Li, Aparna Taneja, Divy Thakkar, Milind Tambe. Facilitating human-wildlife cohabitation through conflict prediction. *Innovative Applications of Artificial Intelligence Conference*, 2022.
9. Haipeng Chen, **Susobhan Ghosh**, Gregory Fan, Nikhil Behari, Arpita Biswas, Mollie Williams, Nancy E. Oriol, Milind Tambe. Using Public Data to Predict Demand for Mobile Health Clinics. *Innovative Applications of Artificial Intelligence Conference*, 2022.
10. **Susobhan Ghosh**, Sujit Gujar, Praveen Paruchuri, Easwar Subramanian, Sanjay P. Bhat. Bidding in Smart Grid PDAs: Theory, Analysis and Strategy. *AAAI Conference on Artificial Intelligence (AAAI)*, 2020.
11. **Susobhan Ghosh**, Easwar Subramanian, Sanjay P. Bhat, Sujit Gujar, Praveen Paruchuri. VidyutVanika: A Reinforcement Learning Based Broker Agent for a Power Trading Competition. *AAAI Conference on Artificial Intelligence (AAAI)*, 2019.
12. **Susobhan Ghosh**. Learning Strategies for Power Trading in Smart Grids. *MS Thesis, IIIT Hyderabad*, 2019.
13. **Susobhan Ghosh**, Kritika Prakash, Sanjay Chandlekar, Easwar Subramanian, Sanjay P. Bhat, Sujit Gujar, Praveen Paruchuri. VidyutVanika: An Autonomous Broker Agent for Smart Grid Environment. *Policy, Awareness, Sustainability and Systems (PASS) Workshop*, 2019.

TALKS & LECTURES

- Deploying RL algorithms for digital interventions, ENAR 2025 (Invited Talk)
- reBandit: Personalizing Treatment Delivery for Reducing Cannabis use, INFORMS 2024 (Invited Talk)
- reBandit: Random Effects based Online RL algorithm for Reducing Cannabis Use, IJCAI 2024
- MiWaves: AI-driven Digital Health Interventions to help reduce cannabis use, SAA 2024
- RL in real life: mixed effects models and reBandit, STAT234: Statistical Reinforcement Learning at Harvard University (Guest Invited Lecture)
- MiWaves: Using AI to help reduce cannabis use among emerging adults, d3C Think Tank Jan 2024
- MiWaves: Developing a 2nd Generation JITAI to reduce cannabis use among emerging adults, d3C Think Tank May 2023
- MiWaves, d3C Think Tank Oct 2022
- VidyutVanika: A Reinforcement Learning Based Broker Agent for a Power Trading Competition, AAAI 2019
- Review of Sidebar and its functionality, LibreOffice Conference 2016 (Invited Talk)

TEACHING

- **Teaching Assistant**, Classics in Computer Science, Harvard University 2022
- **Teaching Assistant**, Information Security, IIIT Hyderabad 2019, 2018
- **Teaching Assistant**, Introduction to Game Theory, IIIT Hyderabad 2017
- **Teaching Assistant**, Computer Networks, IIIT Hyderabad 2017
- **Teaching Assistant**, Introduction to Software Engineering, IIIT Hyderabad 2016
- **Teaching Assistant**, Network Management Workshop, IIT Kharagpur 2015
- **Teaching Assistant**, Network Management Workshop, Nettech Pvt. Ltd. 2014

AWARDS AND HONORS	• Gold Medalist, IIIT Hyderabad	2019
	• AAAI Student Scholarship, AAAI	2019
	• Microsoft Research Travel Grant	2019
	• Dean's Merit List, IIIT Hyderabad	2016, 2017, 2018
	• Central Sector Scheme of Scholarship (CSSS), India	2013
	• Prime Minister Scholarship Scheme (PMSS), India	2013
SKILLS	Languages: English, Hindi, Bengali.	
	Programming Languages: Python, C++, C, Java.	
COMMUNITY SERVICES	Reviewer for: <i>AISTATS-25, NeurIPS-24, RLC-24</i>	
	Open Source Contributor: <i>LibreOffice</i>	