

AKANKSHA SARAN

<https://www.cs.utexas.edu/~asaran>

EDUCATION

University of Texas at Austin Aug 2015 - Present
PhD in Computer Science *GPA: 3.96/4.00*
Advisor: Scott Niekum

Carnegie Mellon University Aug 2013 - Dec 2014
MS in Robotics *GPA: 4.11/4.33*
Advisor: Kris Kitani

Indian Institute of Technology Jodhpur Aug 2009 - May 2013
Bachelor of Technology in Computer Science and Engineering *GPA: 10.0/10.0*

RESEARCH INTERESTS

Reinforcement Learning, Imitation Learning, Human-Robot Interaction

PUBLICATIONS

Ruohan Zhang, Akanksha Saran, Bo Liu, Yifeng Zhu, Sihang Guo, Scott Niekum, Dana H. Ballard and Mary M. Hayhoe. **Human Gaze Assisted Artificial Intelligence: A Review**. IJCAI 2020.

Akanksha Saran, Ruohan Zhang, Elaine Schaertl Short, Scott Niekum. **Efficiently Guiding Imitation Learning Algorithms with Human Gaze**. Short version: Workshop on Reinforcement Learning in Games, AAAI 2020. Full version: AAMAS 2021.

Akanksha Saran, Elaine Schaertl Short, Andrea Thomaz, Scott Niekum. **Understanding Teacher Gaze Patterns for Robot Learning**. Short version: Pioneers Workshop, HRI 2019. Full version: CoRL 2019.

Akanksha Saran, Srinjoy Majumdar, Elaine Schaertl Short, Andrea Thomaz, Scott Niekum. **Human Gaze Following for Human-Robot Interaction**. Short version: Workshop on Social Robots in the Wild, HRI 2018. Full version: IROS 2018.

Akanksha Saran, Branka Lakic, Srinjoy Majumdar, Juergen Hess, Scott Niekum. **Viewpoint Selection for Visual Failure Detection**. IROS 2017.

Akanksha Saran, Damien Teney, Kris Kitani. **Hand Parsing for Fine-Grained Recognition of Human Grasps in Monocular Images**. Short version: Workshop on Observing and Understanding Hands in Action (Hands), CVPR 2015. Full version: IROS 2015.

WORK EXPERIENCE

NVIDIA, Seattle, USA May - Aug 2018
Graduate Robotics Research Intern *Supervisors: Jonathan Tremblay, Mike Skolones*

- Refining human and hand object pose estimation from a monocular camera.
- Real-to-sim robot learning using Generative Adversarial Imitation Learning.

Apple, Cupertino, USA May - Aug 2016
Graduate Research Intern *Supervisors: Shalini Sahoo, Samir Gehani*

- Worked with the Interactive Media Group (IMG) to develop algorithms pertaining to user media search.

- Quality of Life Technology Center, CMU, Pittsburgh, USA** Jan - June 2015
 Research Associate Staff *Supervisors: Aisling Kelliher, Thanassis Rikakis, Kris Kitani*
- Worked on an inter-disciplinary project for a vision-based stroke rehabilitation system for the home.
- EPFL, Lausanne, Switzerland** May - July 2012
 Undergraduate Research Intern *Supervisors: Madhura Purnaprajna and Paolo Ienne*
- Search for Heterogeneous Logic Blocks in FPGA architectures to achieve reduction in area and delay.
- IIT Delhi, New Delhi, India** May - July 2011
 Undergraduate Intern *Supervisor: Smruti Ranjan Sarangi*
- Studying Memory Models for accelerators.

TEACHING EXPERIENCE

- University of Texas at Austin** Fall 2018
Course: Artificial Intelligence
- University of Texas at Austin** Fall 2015
Course: Elements of Computers and Programming
- Carnegie Mellon University** Fall 2014
Course: Computational Photography

REVIEWING

HRI 2019, RSS 2019, ICRA 2019, HRI 2020, RSS 2020, NeurIPS 2020 (top 10%), AAAI 2021, ICLR 2021

UNDERGRADUATE MENTEES

- Sahil Jain August 2020 - Present
 Kush Desai Sept 2018 - Present
 Srinjoy Majumdar Jan 2017 - Feb 2018

LEADERSHIP

- Workshop Co-Organizer** 2020
Advances and Challenges in Imitation Learning for Robotics, RSS 2020
- Coordinator** 2020
Girl Day, UT Austin
- Workshop Co-Organizer** 2019 - 2020
Web and Publicity Chair, HRI Pioneers 2020
- Workshop Co-Organizer** 2020 - 2021
Program Chair, HRI Pioneers 2021
- Executive Committee Member** 2017 - 2018
Graduate Representative Association of Computer Science (GRACS), UT Austin
- Secretary** 2016 - 2017
Graduate Women in Computing (GWC), UT Austin
- Coordinator** 2012, 2013
Entrepreneurship Meet, IIT Jodhpur

Assistant Coordinator <i>Literature Club, IIT Jodhpur</i>	2012, 2013
Festival Co-Organizer <i>Techno-Cultural Festival, IIT Jodhpur</i>	2012, 2013

OUTREACH

Volunteer <i>UTCS Robotics Summer Camp</i>	2019
Volunteer <i>UT Explore</i>	2018
Volunteer and Mentor <i>Women in Engineering Program (WEP), UT Austin</i>	2017-2020
Volunteer <i>UTCS Hour of Code</i>	2016, 2019
Mentor <i>#include Fellowship Program</i>	2014, 2016
Volunteer <i>Women@SCS, CMU</i>	2014
Mentor <i>Programming Club, IIT Jodhpur</i>	2011-2012
Volunteer <i>Weekly Rural Medical Health Program, IIT Kanpur</i>	2009-2010

HONORS AND AWARDS

Women in Engineering Leadership Scholarship, UT Austin	2020
HRI Pioneer	2019
Student and Developing Countries Travel Award, IROS	2018
ISSS Financial Aid Scholarship, UT Austin	2018, 2020
Adobe Research Fellowship Finalist	2018
CRA-W Graduate Women Cohort	2017
NSF Doctoral Consortium Award, IROS	2017
3rd Place, RoboCup@Home Domestic Standard Platform League	2017
UT Professional Development Award for travel to HRI, RSS, IROS, CoRL	2017-2020
Young Women Researcher Grant, RSS	2014
GSA/Provost Research and Conference Funding Award, CMU	2014
Google Anita Borg Memorial Scholarship Asia Pacific	2013
TOEFL Scholarship	2013
American Alumni Association Scholarship	2013
President's Gold Medal, IIT Jodhpur	2013
Proficiency Medal, IIT Jodhpur	2013
Overall Performance Award, IIT Jodhpur	2011-2013