

# Kasra Darvish

Maryland, USA

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## RESEARCH INTERESTS

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- Artificial Intelligence, Computer Vision
- Probabilistic Machine Learning
- Natural Language Processing
- Deep Learning, Bayesian Inference

## EDUCATION

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### Ph.D. in Computer Science

University of Maryland, Baltimore County

- Advisor: Professor Cynthia Matuszek
- Research: Multimodal Probabilistic Grounded Language Learning
- GPA: 3.875/4.0

2018-Present

Maryland, USA

### B.Sc. in Computer Science

Shahid Beheshti University

- GPA: 3.78/4.0 • Last 2 years GPA: 3.92/4.0

2013-2018

Tehran, Iran

## TECHNICAL SKILLS

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### • Programming and Tools:

- Python, PyTorch
- C++, MATLAB, Prolog
- Bash, Oh My Zsh, Vim, Emacs
- $\text{\LaTeX}$ , HTML, Markdown, Org Mode

### • Operating Systems: Mac OS X, GNU/Linux

## PUBLICATIONS

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*A Spoken Language Dataset of Descriptions for Speech-Based Grounded Language Learning.* Gaoussou Youssouf Kebe, Padraig Higgins, Patrick Jenkins, **Kasra Darvish**, Rishabh Sachdeva, Ryan Barron, John Winder, Donald Engel, Edward Raff, Francis Ferraro, Cynthia Matuszek. In press at the Thirty-fifth Conference on Neural Information Processing Systems (NeurIPS) Datasets and Benchmarks Track, 2021.

*Discriminative and Generative Transformer-based Models For Situation Entity Classification.* Mehdi Rezaee, **Kasra Darvish**, Gaoussou Youssouf Kebe, Francis Ferraro. arXiv preprint arXiv:2109.07434, 2021.

*Towards Making Virtual Human-Robot Interaction a Reality.* Padraig Higgins, Gaoussou Youssouf Kebe, **Kasra Darvish**, Don Engel, Francis Ferraro, Cynthia Matuszek. In press at the 3rd International Workshop on Virtual, Augmented, and Mixed-Reality for Human-Robot Interactions (VAM-HRI), Boulder, CO, USA, 2021.

*Practical Cross-Modal Manifold Alignment for Robotic Grounded Language Learning.* Andre T Nguyen, Luke E Richards, Gaoussou Youssouf Kebe, Edward Raff, **Kasra Darvish**, Frank Ferraro, Cynthia Matuszek. In press at Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2021.

*Learning Object Attributes with Category-Free Grounded Language from Deep Featurization.* Luke E. Richards, **Kasra Darvish**, Cynthia Matuszek. In press at The IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Las Vegas, Nevada, USA, October 2020.

*A Manifold Alignment Approach to Grounded Language Learning.* Luke E. Richards, Andre T. Nguyen, **Kasra Darvish**, Edward Raff, Cynthia Matuszek. The Northeast Robotics Colloquium (NERC 2019), Philadelphia, Pennsylvania, USA, October 2019.

## HONORS AND AWARDS

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- **Morgan Stanley scholarship recipient as a Data Science researcher** 2018-2019  
*University of Maryland, Baltimore County* Maryland, USA
- **Ranked as top 1% among computer science students** 2018  
*Shahid Beheshti University* Tehran, Iran
- **Exempted from M.Sc. university entrance exam as an exceptional-talent student** 2017  
*Nationwide Universities Graduate Entrance Exam* Iran
- **Ranked as top 1% among more than 250,000 students** 2013  
*Nationwide Universities Entrance Exam* Iran

## RESEARCH EXPERIENCE

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- **Research Assistant, Robotics and Machine Learning** Prof. Cynthia Matuszek  
*IRAL Lab, University of Maryland, Baltimore County* Feb. 2019 - Present
- **Research Assistant, Deep Learning** Prof. Hadi Farahani  
*Shahid Beheshti University* Nov. 2017 - May 2018
- **Research Assistant, Computational Geometry** Prof. Farnaz Sheikhi  
*Shahid Beheshti University* Feb. 2017 - May 2018
- **Research Assistant, Image Processing** Prof. Alireza Tavakoli  
*Shahid Beheshti University* May 2017 - July 2017

## TEACHING EXPERIENCE

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- **Teaching Assistant, Algorithms** Prof. Paul Burkhardt  
*University of Maryland, Baltimore County* Jan. 2019 - May 2019
- **Teaching Assistant, Algorithms** Prof. Christopher Marron  
*University of Maryland, Baltimore County* Sept. 2018 - Dec. 2018
- **Teaching Assistant, Computational Geometry** Prof. Farnaz Sheikhi  
*Shahid Beheshti University* Sept. 2017 - Jan. 2018
- **Teaching Assistant, Compiler Theory** Prof. Adel Hosseini  
*Shahid Beheshti University* Sept. 2017 - Jan. 2018
- **Teaching Assistant, Automata Theory** Prof. Hadi Farahani  
*Shahid Beheshti University* Feb. 2016 - July 2016

## CONFERENCE REVIEWER

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- **Neural Information Processing Systems (NeurIPS):** 2021
- **Intelligent Robots and Systems (IROS):** 2020

## MEMBERSHIPS AND SERVICES

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- **Iranian Graduate Student Association Secretary** 2018 - 2019  
*University of Maryland, Baltimore County* Maryland, USA
- **IOI Office Member** Aug. 2017  
*The 29th International Olympiad in Informatics* Tehran, Iran
- **Executive Director of "Pardazeh"** Sept. 2014 - Nov. 2015  
*The Scientific Journal of Computer Science Association, SBU* Tehran, Iran