

Omid Bakhshandeh

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RESEARCH INTERESTS ♦ **Natural Language Processing**

- Natural Language Understanding
- Dialogue Systems
- Semantic Parsing
- Grounded Language Learning

♦ Robotics

EDUCATION ♦ **University of Rochester**, United States

PhD. in Computer Science, August 2012-June 2017

M.Sc. in Computer Science, September 2012-June 2014

· *Advisor*: James F. Allen

· *Thesis*: Language Learning Through Comparison.

· *Relevant Courses*: Natural Language Understanding, Dialogue Systems, Machine Learning.

♦ **Qazvin University**, Iran

B.Sc. in Software Engineering, September 2007-July 2012

· *Thesis*: Temporal Text Summarization

♦ **Shahid Ejei High School**, Isfahan, Iran.

Part of National Organization for Development of Exceptional Talents (NODET)

Diploma in Mathematics and Physics Discipline, September 2003-July 2007

NLP PUBLICATION ♦ **R. Sharma**, J. Allen, **O. Bakhshandeh**, N. Mostafazadeh, Tackling the Biases in the Story Cloze Test, Conference of the Association for Computational Linguistics (ACL), 2018. [paper]

♦ **J. Allen**, **O. Bakhshandeh**, C. Teng, L. Galescu, W. de Beaumont, Effective Broad-Coverage Deep Parsing, Association for the Advancement of Artificial Intelligence (AAAI), 2018. [paper]

♦ **O. Bakhshandeh**, J. Allen, *Apples to Apples: Learning Semantics of Common Entities Through a Novel Comprehension Task*, Conference of the Association for Computational Linguistics (ACL), 2017 [paper]

♦ **O. Bakhshandeh**, T. Bui, Z. Lin, W. Chang, *Proposing Plausible Answers for Open-ended Visual Question Answering*, arXiv preprint, 2016. [paper]

♦ **O. Bakhshandeh**, A. Welwood, J. F. Allen, *Learning to Jointly Predict Ellipsis and Comparison Structures*, appeared in Conference on Computational Language Learning (CoNLL) 2016. [paper]

♦ **O. Bakhshandeh** and J. F. Allen, *Towards Broad-coverage Meaning Representation: The Case of Comparison Structures*, appeared in Uphill Battles in Language Processing Workshop, EMNLP 2016. [paper]

- ◇ **O. Bakhshandeh** and J. F. Allen, *Semantic Framework for Comparison Structures in Natural Language*, appeared in Empirical Methods on Natural Language Processing (EMNLP) 2015. [paper]
 - ◇ **O. Bakhshandeh** and J. F. Allen, *From Adjective Glosses to Scales: Learning Different Aspects That an Adjective Can Describe*, appeared in International Conference on Computational Semantics (IWCS) 2015. [paper]
 - ◇ N. Mostafazadeh, **O. Bakhshandeh**, and G. Ghassem-Sani, *Formal Verification of Temporal Questions In the Context of Query-Answering Text Summarization*, 25th Canadian Conference on Artificial Intelligence (AI'2012), appeared in Advances in Artificial Intelligence, Volume 7310, Springer, 2012. [paper]
 - ◇ N. Mostafazadeh, S. Abolghasem mirroshandel, G. Ghassem-Sani, **O. Bakhshandeh**, *Pazesh: A Graph-Based Approach to Increase Readability of Automatic Text Summaries*, 24th Canadian Conference on Artificial Intelligence (AI'2011), Appeared in Lecture Notes in Artificial Intelligence (LNAI), Volume 6657, Springer, 2011. [paper]
- ROBOTICS PUBLICATION
- ◇ **O. Bakhshandeh**, and M. A. Sharbafi, *Modeling and Simulating of Omni Directional Soccer Robots*, appeared in International Journal of Modeling and Optimization, 2012. [paper]
 - ◇ M. A. Sharbafi, A. Azidehak, M. Hoshyari, **O. Bakhshandeh**, A. Adhami-Mirhosseini, A. Zareian, D. Esmaeely, A. Ganjali, S. Esmaeelpourfard, S. Ziadloo, H. Jamaati Tafti, *MRL Extended Team Description Paper*, appeared in International Robocup Symposium, 2011. [paper]
 - ◇ M. A. Sharbafi, **O. Bakhshandeh**, M. Hoshyari, S. Esmaeelpourfard, A. Azidehak, A. Zareian, *MRL Small Size 2011 Team Description Paper*, appeared in RoboCup 2011 Proceedings, Istanbul, Turkey.
 - ◇ A. Haghshenas, M. A. Sharbafi, D. Esmaeeli, **O. Bakhshandeh**, *Bayer-Based Vision System: Image Processing Over an Incomplete Color-Space*, appeared in International Conference on Image Processing, Computer Vision, & Pattern Recognition (IPCV), Las Vegas, Nevada, USA, 2010. [paper]
 - ◇ M. A. Sharbafi, M. Hoshyari, S. Esmaeelpourfard, **O. Bakhshandeh**, M. Haajseyedjavadi, D. Esmaeeli, *MRL Small Size 2010 Team Description Paper*, appeared in RoboCup 2010 Proceedings, Singapore.
 - ◇ E. Hashemi, M. G. Jadidi, and **O. Bakhshandeh**, *Trajectory Planning Optimization with Dynamic Modeling of Four Wheeled Omni-Directional Mobile Robots*, appeared in proceedings of IEEE International Conference on Computational Intelligence in Robotics and Automation (CIRA), Evolutionary Robotics, Korea, 2009. [paper]
 - ◇ **O. Bakhshandeh**, A. Azidehak, M. Gorji, M. A. Sharbafi, *MRL Small Size 2008 Team Description Paper*, appeared in RoboCup 2008 Proceedings, Suzhou, China. [paper]
- WORK EXPERIENCE
- ◇ **CEO & Founder, Verneek Inc.**, April 2018-Present.
 - ◇ **Research Scientist, Institute for Human and Machine Cognition (IHMC)**, 2017-2018.
 - *Research*: Domain-general Natural Language Understanding, Dialogue Systems, Semantic Parsing.
 - ◇ **Research Intern, Adobe Research**, Summer 2016.
 - *Research Project*: Knowledge-driven approaches for tackling Visual Question Answering.
 - ◇ **Research Intern, Institute for Human and Machine Cognition (IHMC)**, Summer 2015.
 - *Research Project*: Enhancing broad-coverage semantic parser for machine reading of cancer abstracts.

- ◇ **Research Assistant, Conversational Interaction and Spoken Dialogue Research Group**, University of Rochester, 2012-Present.
 - *Research Focus*: Natural Language Understanding, Dialogue Systems, Computational Semantics, Semantic Parsing.
- ◇ **Head of AI, Small Size Soccer Robots Team in Mechatronics Research Laboratory (MRL)**, Qazvin, Iran, 2007-2012.
 - *Research Focus*: Motion Planning, Computer Vision, Machine Learning, Multi-agent Systems, AI Planning.
- ◇ **Team Leader, Junior Soccer Robots** for Espadana Robocup Team of Shahid Ejei high school, 2004-2007.
 - *Focus*: Mechantronics, Robotics, Electrical Circuits.
- TEACHING EXPERIENCE ◇ **Teaching Assistant**, Computer Science Department, University of Rochester.
 - Natural Language Understanding, Spring 2015.
 - Programming Languages, Fall 2013.
- ◇ **Teaching**, Mechatronics Research Laboratory, Qazvin, Iran, 2010-2012.
 - Robotics [graduate-level students]
 - Computer Vision [graduate-level students]
 - Advanced C# Programming
 - Introduction to Artificial Intelligence
 - Introduction to Robotics
- HONORS, AWARDS, AND GRANTS ◇ **University of Rochester Graduate Scholarship**, 2012-2017.
- ◇ **Recipient of European Association for Computational Linguistics (EACL) grant**, for ESSLLI 2011, Summer 2011.
- ◇ **Recipient of scholarship** from Institut national de recherche en informatique et en automatique (INRIA), *for attending Summer School on Image and Robotics*, France, Summer 2011.
- ◇ **Recipient of Summer Grant** from Microsoft Research, *for Software Engineering and Verification Summer School*, Microsoft Russia, summer 2011
- ◇ **3rd place of International Robocup Competitions**, As the head of AI of MRL small size soccer robots team, Robocup 2011, Istanbul, Turkey.
- ◇ **3rd place of International Robocup Competitions**, As the head of AI of MRL small size soccer robots team, Robocup 2010, Singapore.
 - *Remark*: Omid Bakhshandeh was the core founder of MRL small-size team and was the head of AI division during 2008-2012.
- ◇ **Winner of Khwarizmi Youth Robotic Award** for small size soccer robots, 2008 and 2009, Tehran, Iran.
- ◇ **1st place of IranOpen Small Size Robot Competitions**, 2008, 2009, 2010, and 2011, Tehran, Iran.
- ◇ **1st place of International Robocup Competitions**, As the team leader of Espadana team in Junior Soccer League, Robocup 2007, Atlanta, USA, 2007.
- ◇ **1st place of International Robocup Competitions**, As a team member of Espadana team in Junior Soccer League, Robocup 2006, Bremen, Germany, 2006.
- MEMBERSHIP ◇ **Center for Language Sciences**, University of Rochester, 2012-Present.
- ◇ **Association for Computational Linguistics (ACL)**, 2012-Present.

- ◇ **Association for Advancement of Artificial Intelligence (AAAI)**, 2012-Present.
- ◇ **Mechatronics Research Laboratory**, Iran, 2007-2012.
- ◇ **National Organization for Development of Exceptional Talents (NODET)**, Iran, 2001-2008.
 - Selected through an exam among more than 700,000 participants countrywide, 2000.

PROGRAMMING Scala (Major), Python, Java, C# , familiar with C++, Prolog, Ruby, Perl.
LANGUAGES