Reza Iraji

CONTACT INFORMATION	Department of Computer Science University of Colorado Boulder	Website: https://csel-web.cs.colorado.edu/~reir5283/ E-mail: Reza.Iraji@colorado.edu

<small>EDUCATION</small>

University of Colorado Boulder

Graduate, Computer Science   **August 2021 – Present**
GPA: 4.00 out of 4.00.

Sharif University of Technology

Master of Science, Computer Engineering   **September 2004 – January 2007**
GPA: 18.35 out of 20.

Azad University - South Tehran

Bachelor of Science, Computer Engineering   **February 2002 – February 2004**
GPA: 18.39 out of 20.

Shahid Chamran University

Associate of Science, Computer Software   **February 2000 – February 2002**
GPA: 18.11 out of 20.

<small>APPOINTMENTS</small>

University of Colorado Boulder

Course Manager and Grader   **August 2021 - Now**
Graduate course: Neural Networks and Deep Learning.
Undergraduate course: Introduction to Robotics.

Spectrum Gems LLC

Founder, Retail and IT Manager   **October 2018 - Now**

Medtronic

R&D Robotics Engineer   **September 2021 - December 2021**

K&G Petroleum

Retail Manager   **December 2017 - April 2021**

Colorado State University

Graduate Research Assistant   **May 2015 - December 2016**

Colorado State University

Graduate Teaching Assistant   **August 2014 - May 2015**
Undergraduate courses: Algorithms and Data Structures, and System Architecture and Software.

Wayne State University

Graduate Research Assistant   **May 2014 - August 2014**

Wayne State University

Graduate Teaching Assistant   **August 2013 - April 2014**
Graduate courses: Design and Analysis of Algorithms, and Graduate Seminar.

Azad University

Instructor   **September 2006 - February 2013**
Undergraduate courses: Artificial Intelligence, Algorithm Design, Computer Architecture, Motion

Planning, Visual C#, Computer Programming II (C++), Machine Organization and Language (Assembly), Computer Networks, and Operating Systems.

IRISA Company

Developer and IT Manager   **June 2004 - August 2004**

Organizer
1st international workshop on Robot Learning and Planning (RLP)   **February 2016 - June 2016**
Founder of Colorado State University's RoboCup team   **October 2015 - December 2016**

Reviewer
IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS 2016)   **March 2016 - July 2016**

Member
IEEE RAS Tech. Comm. in Algorithms for Planning and Control of Robot Motion   **2007 - 2017**
IEEE   **7 years**
Sharif University of Technology's RoboCup team   **July 2005 - June 2006**

HONORS AND
AWARDS

Graduate Assistantship   **August 2014 - December 2016**
Colorado State University

Graduate Assistantship   **August 2013 - August 2014**
Wayne State University

Rumble Fellowship   **January 2013 - May 2013**
Wayne State University

Selected as National Elite   **February 2010**
Iran's National Institute of Elites

Selected as Brilliant Talent   **February 2007**
Sharif University of Technology

Ranked 1st among Graduated M.Sc. Students in Computer Engineering   **February 2007**
Sharif University of Technology
Minor: Computer Architecture.

Ranked 1st among Graduated B.Sc. Students in Computer Engineering   **February 2004**
Azad University - South Tehran
Minor: All.

Ranked 1st among Graduated A.Sc. Students in Computer Software   **February 2002**
Shahid Chamran University

TRAVEL
AWARDS

Travel Grant, RSS 2016, Ann Arbor, Michigan   **June 2016**
Colorado State University

Travel Grant, IEEE CDC 2014, Los Angeles, California   **December 2014**
Colorado State University

Travel Grant, RECOMB 2014, Pittsburgh, Pennsylvania   **April 2014**
Wayne State University

RESEARCH
INTERESTS

Motion Planning, SLAM, Algorithmic Robotics, Machine Learning, Deep Learning, and Nonlinear Dimensionality Reduction.

SKILLS AND
EXPERTISE

Languages & Software: C/C++, Python, Visual C++, Java, OpenGL, CUDA, MATLAB, SQL, HTML, LaTeX, and MS Office.

Platforms: Windows, and Linux.

PUBLICATIONS
(H-INDEX: 6)

[1] R. Iraji and H. Chitsaz, "Principal Variety Analysis," in *Proceedings of the Annual Conference on Robot Learning*, vol. 78 of *Proceedings of Machine Learning Research*, pp. 97–108, 13–15 Nov 2017.

[2] R. Iraji and H. Chitsaz, "NUROA: A numerical roadmap algorithm," in *Decision and Control (CDC), IEEE 53rd Annual Conference on*, pp. 5359–5366, Dec 2014.

[3] R. Ranjbaran, M. Goodarzi, R. Iraji, and M. Goodarzi, "Estimate DC characteristics of OPAMP with neural networks," in *Computer Modeling and Simulation (EMS), Fourth UKSim European Symposium on*, pp. 531–534, Nov 2010.

[4] A. Nooraliei and R. Iraji, "Noise reduction and image sharpening using IJA cellular learning automaton," in *Computer Research and Development, Second International Conference on*, pp. 790–794, May 2010.

[5] R. Iraji and M. T. Manzuri-Shalmani, "AMF: A novel reactive approach for motion planning of mobile robots in unknown dynamic environments," in *Robotics and Biomimetics (ROBIO), IEEE International Conference on*, pp. 1698–1703, Dec 2009.

[6] A. Nooraliei and R. Iraji, "Robot path planning using wavefront approach with wall-following," in *Computer Science and Information Technology, 2nd IEEE International Conference on*, pp. 417–420, Aug 2009.

[7] M. Naderan Tahan, R. Iraji, and M. T. Manzuri-Shalmani, "A real-time clearance-based approach for motion planning of mobile robots," in *Cognitive Informatics, 7th IEEE International Conference on*, pp. 394–401, Aug 2008.

[8] A. H. Jamalian, R. Iraji, and M. T. Manzuri-Shalmani, "A learning automata-based method for estimating the mobility model of nodes in mobile ad-hoc networks," in *Cognitive Informatics, 7th IEEE International Conference on*, pp. 249–254, Aug 2008.

[9] R. Iraji, M. T. Manzuri-Shalmani, A. H. Jamalian, and A. Sefidpour, "A real-time color-independent method for multiple faces tracking," in *Cognitive Informatics, 6th IEEE International Conference on*, pp. 99–105, Aug 2007.

[10] A. H. Jamalian, R. Iraji, A. Sefidpour, and M. T. Manzuri-Shalmani, "Examining the ϵ-optimality property of a tunable FSSA," in *Cognitive Informatics, 6th IEEE International Conference on*, pp. 169–177, Aug 2007.

[11] A. H. Jamalian, A. Sefidpour, M. T. Manzuri-Shalmani, and R. Iraji, "SME: Learning automata-based algorithm for estimating the mobility model of soccer players," in *Cognitive Informatics, 6th IEEE International Conference on*, pp. 462–469, Aug 2007.

[12] R. Iraji and M. Manzuri-Shalmani, "A new fuzzy-based spatial model for robot navigation among dynamic obstacles," in *Control and Automation, IEEE International Conference on*, pp. 1323–1328, May 2007.

[13] R. Iraji, S. Hessabi, and E. K. Moghadam, "Accelerating the Rijndael algorithm using custom instructions capability of Nios II in ODYSSEY," in *Design and Test of Integrated Systems in Nanoscale Technology, International Conference on*, pp. 69–73, Sep 2006.

[14] R. Iraji, M. T. Manzuri-Shalmani, A. H. Jamalian, and H. Beigy, "IJA automaton: Expediency and ϵ-optimality properties," in *Cognitive Informatics, 5th IEEE International Conference on*, vol. 1, pp. 617–622, July 2006.

[15] R. Iraji and H. Sarbazi-Azad, "A probability-based instruction combining method for scheduling in VLIW processors," in *Computer Systems and Applications, IEEE International Conference on.*, pp. 673–679, March 2006.