

# Bahram Behzadian

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<b>Research Interest</b>	Machine learning, in particular, reinforcement learning, robust Markov decision processes, robotics.	
<b>Education</b>	UNIVERSITY OF NEW HAMPSHIRE	<b>Ph.D. candidate in Computer Science</b> , 2015–Present
	Advisor: Marek Petrik.	
	UNIVERSITY OF NEW HAMPSHIRE	<b>MSc. in Computer Science</b> , 2019
	Master's thesis: <i>Feature Selection by Singular Value Decomposition for Reinforcement Learning</i> . Advisor: Marek Petrik.	
<b>Awards</b>	TAMPERE UNIVERSITY OF TECHNOLOGY, FINLAND	<b>MSc. in Machine Automation</b> , 2013
	Master's thesis: <i>Robot Localization with Weak Maps</i> . Advisor: Wolfram Burgard.	
	AZAD UNIVERSITY, MASHHAD, IRAN	<b>BSc. in Mechanical Engineering</b> , 2007
	Final project: <i>HVAC design for 16,000 sq. ft cold storage warehouse</i>	
<b>Conference Publications</b>	CEPS Graduate Fellowship	2015
	College of Engineering and Physical Sciences, University of New Hampshire A prestigious award that is based on the strength of academic record and the potential for success in graduate school. Total financial package valued at \$60,008.	
	Thesis and Dissertation Fellowship	2012
	Office of International Affairs, Tampere University of Technology Total financial package valued at \$2,300.	
<b>Symposium and Workshop Publications</b>	Bahram Behzadian, Soheil Gharatappeh, Marek Petrik. “Fast Feature Selection for Linear Value Function Approximation” In <i>International Conference on Automated Planning and Scheduling, (ICAPS)</i> , Berkeley (CA), USA, 2019.	
	Bahram Behzadian, Pratik Agarwal, Wolfram Burgard, and Gian Diego Tipaldi. “Monte Carlo localization in hand-drawn maps” In <i>Intelligent Robots and Systems (IROS), 2015 IEEE/RSJ International Conference on</i> , pp. 4291-4296. <i>IEEE</i> , 2015.	
	Federico Boniardi, Bahram Behzadian, Wolfram Burgard, and Gian Diego Tipaldi. “Robot navigation in hand-drawn sketched maps.” In <i>Mobile Robots (ECMR), 2015 European Conference on</i> , pp. 1-6. <i>IEEE</i> , 2015.	
<b>Symposium and Workshop Publications</b>	Reazul Hasan Russel, Bahram Behzadian, Marek Petrik. “Optimizing Norm-bounded Weighted Ambiguity Sets for Robust MDPs” In <i>33rd Conference on Neural Information Processing Systems (NeurIPS) Safety and Robustness in Decision-making Workshop</i> , Vancouver, Canada, 2019.	
	Bahram Behzadian, Marek Petrik. “Feature Selection by Singular Value Decomposition for Reinforcement Learning” In <i>International Conference on Machine Learning (ICML) Prediction and Generative Modeling Workshop</i> , Stockholm, Sweden, 2018.	

Bahram Behzadian, Marek Petrik. “Low-rank Feature Selection for Reinforcement Learning” In *International Symposium on Artificial Intelligence and Mathematics, (ISAIM)*, Fort Lauderdale, (FL), USA, 2018.

## Professional Experience

UNIVERSITY OF NEW HAMPSHIRE

*Research and Teaching Assistant*

August 2015–Present

I’ve been involved in projects such as feature construction from high-dimensional raw-input observation for linear value function approximation in context of reinforcement learning, coordinated multi-robot exploration, path planning for autonomous surface vehicles, object detection on the sea surface based on image classification using deep learning, and TREC CAR: information retrieval with a focus on knowledge graphs.

I served as a teaching assistant in:

CS 414 - *From Problems to Algorithms to Programs* (Fall 2017),

CS 415 - *Intro to Computer Science I* (Fall 2016, Spring 2018),

CS 416 - *Intro to Computer Science II* (Spring 2018),

CS 417 - *From Programs to Computer Science* (Spring and Fall 2017).

ENVIO, INC.

*AI Engineer Intern*

May 2018–August 2018

Dover, NH, USA

I worked on the design and implementation of a vehicle routing project for an intermodal freight transport platform that harnesses AI for optimization

UNIVERSITY OF FREIBURG

*Research Assistant*

March 2012–October 2014

Autonomous Intelligent Systems Lab, Freiburg, Germany

I worked on the localization and navigation problem of a mobile robot, in which the map of the environment was not present beforehand, and the robot relied on a hand-drawn map from a non-expert user.

PERGAS POLYMER CO, TEHRAN, IRAN

*Industrial Maintenance Technician*

December 2008–December 2009

PLC maintenance & troubleshooting (including Ladder logic)

I operated as an industrial maintenance technician for PLC troubleshooting (including Ladder logic).

TADBIR SANAT CONSULTING ENGINEERS, TEHRAN, IRAN

*HVAC System Designer*

September 2007–November 2008

Mechanical Engineer for heating, ventilating, air conditioning and piping

I performed calculations in the development of Mechanical Systems Design, Selection and sizing of equipment and interconnected HVAC, Hydronic, Steam and Plumbing Systems.

## Technical Skills

Programming Languages: Python; C/C++; Matlab/Octave.

Working knowledge: R; Java.

Tools: Git; SVN; L<sup>A</sup>T<sub>E</sub>X; Linux; Windows; TLA+ .

## Language Skills

English: Fluent, Persian: Native speaker, German: Elementary proficiency

Academic IELTS Overall Band 7.0

GRE Revised General Test QR: 164, VR: 151, AW: 3