

Bahram Behzadian

Email: bahram@cs.unh.edu
Phone: +1-603-767-9507
<https://www.cs.unh.edu/~bb1071>

- Research Interest** Machine learning, in particular, reinforcement learning, robust Markov decision processes, robotics.
- Education**
- UNIVERSITY OF NEW HAMPSHIRE **Ph.D. candidate in Computer Science**, 2015–Present
Advisor: Marek Petrik.
- UNIVERSITY OF NEW HAMPSHIRE **MSc. in Computer Science**, 2019
Master’s thesis: *Feature Selection by Singular Value Decomposition for Reinforcement Learning*.
Advisor: Marek Petrik.
- TAMPERE UNIVERSITY OF TECHNOLOGY, FINLAND **MSc. in Machine Automation**, 2013
Master’s thesis: *Robot Localization with Weak Maps*.
Advisor: Wolfram Burgard.
- AZAD UNIVERSITY, MASHHAD, IRAN **BSc. in Mechanical Engineering**, 2007
Final project: *HVAC design for 16,000 sq. ft cold storage warehouse*
- Awards**
- 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.
- Conference Publications**
- Bahram Behzadian, Soheil Gharatappeh, Marek Petrik. “Fast Feature Selection for Linear Value Function Approximation” In *International Conference on Automated Planning and Scheduling, (ICAPS)*, Berkeley (CA), USA, 2019.
- Bahram Behzadian, Pratik Agarwal, Wolfram Burgard, and Gian Diego Tipaldi. “Monte Carlo localization in hand-drawn maps” In *Intelligent Robots and Systems (IROS), 2015 IEEE/RSJ International Conference on*, pp. 4291-4296. *IEEE*, 2015.
- Federico Boniardi, Bahram Behzadian, Wolfram Burgard, and Gian Diego Tipaldi. “Robot navigation in hand-drawn sketched maps.” In *Mobile Robots (ECMR), 2015 European Conference on*, pp. 1-6. *IEEE*, 2015.
- Symposium and Workshop Publications**
- Reazul Hasan Russel, Bahram Behzadian, Marek Petrik. “Optimizing Norm-bounded Weighted Ambiguity Sets for Robust MDPs” In *33rd Conference on Neural Information Processing Systems (NeurIPS) Safety and Robustness in Decision-making Workshop*, Vancouver, Canada, 2019.
- Bahram Behzadian, Marek Petrik. “Feature Selection by Singular Value Decomposition for Reinforcement Learning” In *International Conference on Machine Learning (ICML) Prediction and Generative Modeling Workshop*, 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^AT_EX; 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