

Gheorghe Lisca

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Employment

Researcher, PhD Candidate

Machine Learning for Human Avatar Reconstruction in Virtual Reality
Audi-Konfuzius-Institut Ingolstadt, Ingolstadt, Germany

Sep 2019 - present

Program Member

AI and Machine Learning for Robots in Chemical Industry and Industrial Plant Maintenance
Entrepreneur First, Berlin, Germany

Apr 2019 - Jun 2019

Head of Software and Robotics

AI, Machine Learning, High- and Low-level Control (complete software stack) for a new Social Robot
navel robotics GmbH, Munich, Germany

Aug 2018 - Mar 2019

Senior Research and Development Engineer

AI and High- and Low-level Robot Control for Social Robots
Neuland Software GmbH, Augsburg, Germany

May 2018 - Jul 2018

Senior Research and Development Engineer (freelancer)

AI, Robot Control and web development for Social Robots
Di-Unternehmer GmbH, Hamburg, Germany

Dec 2017 - Apr 2018

Chief Executive Officer and Chief Technology Officer

AI, Machine Learning, Robot Control and web development for Social Robots
Blackout Technologies UG, Bremen, Germany

Nov 2016 - Nov 2017

PhD Candidate

AI and High-level Robot Control for Autonomous Mobile Robots
University of Bremen, Bremen, Germany

Sep 2012 - Jun 2017

PhD Candidate

AI and High-level Robot Control for Autonomous Mobile Robots
Technical University of Munich, Munich, Germany

Dec 2011 - Aug 2012

Scientific Researcher

AI, Computer Vision and Robot Control
Technical University of Cluj-Napoca, Cluj, Romania

Oct 2008 - Nov 2011

Education

PhD Candidate

Artificial Intelligence and High-level Robot Control for Autonomous Mobile Robots
University of Bremen, Bremen, Germany Sep 2012 - Jun 2017
Advisor: Prof. Michael Beetz, PhD (University of Bremen)

PhD Candidate

Artificial Intelligence and High-level Robot Control for Autonomous Mobile Robots
Technical University of Munich, Munich, Germany Dec 2011 - Aug 2012
Advisor: Prof. Michael Beetz, PhD (University of Bremen)

Master of Science (M.Sc.)

Artificial Intelligence and Computer Vision
Technical University of Cluj-Napoca, Romania Oct 2009 - June 2011
Advisor: Prof. Dr. Sergiu Nedevschi (Technical University of Cluj-Napoca, Cluj, Romania)

Bachelor of Science (B.Sc.)

Automation and Computer Science
Technical University of Cluj-Napoca, Romania Oct 2005 - June 2009
Advisor: Prof. Dr. Sergiu Nedevschi (Technical University of Cluj-Napoca, Cluj, Romania)

Teaching Experience

Teaching Assistant

University of Bremen, Bremen, Germany WS2012 - WS2017

Student Individual and Group Project Supervisor

University of Bremen, Bremen, Germany WS2013 - WS2017

Student Bachelor and Master Theses Supervisor

University of Bremen, Bremen, Germany WS2013 - SS2016

Google Summer of Code Mentor

University of Bremen, Bremen, Germany SS2015, SS2016

Teaching Assistant

Technical University of Cluj-Napoca, Cluj, Romania WS2010 - SS2011

Psycho-Pedagogical Training

Technical University of Cluj-Napoca, Cluj, Romania WS2008, SS2009

Awards

Entrepreneur First Grant

Research the feasibility of AI and Robotics in Chemical Industry and Industrial Maintenance. Apr 2019

Everyday Activity Science and Engineering, German SFB Grant

Strongly contributed to the demonstrator of project's defense and proposal's writing. Jun 2017

Exhibition booth at Pioneers Festival

Pioneer in building blueprint personalities for social robots. May 2017

Exhibition booth within IBM's stand at CeBIT

Pioneer in developing social robots for dementia patients. Mar 2017

1st place IBM Outthink Health care Hackathon

Prototype of social robot powered by IBM Watson for assisting an Alzheimer patients. Sep 2016

PR2 Workshop on ICRA Sushi manipulation challenge

Hacked a prototype control software for picking up plates from a rotating table at Uni Freiburg. May 2012

Accomplishments

Pizza Demonstrator

Lead the integration of RoboHow EU Project's final demonstrator assessed as *EXCELLENT*. Sep 2016

Chemlab Demonstrator

Lead the integration of ACat EU Project's final demonstrator assessed as *VERY GOOD*. Apr 2016

Human-aware Robot Control Demonstrator

Implemented part of SAPHARI EU Project's final demonstrator assessed as *EXCELLENT*. Dec 2015

Popcorn Demonstrator

A demonstrator which made it into a very popular German documentary *Elbe von oben*. Jun 2012

Publications

Theses

Master of Science, Gheorghe Lisca. *Robot localization and environment mapping using a probabilistic motion model and an occupancy grid.*

Bachelor of Science, Gheorghe Lisca. *Calibration and cross calibration of a perception system composed by a multi layer laser scanner and a stereo camera.*

Proceedings

1. **Gheorghe Lisca**, Daniel Nyga, Ferenc Bálint-Benczédi, Hagen Langer, Michael Beetz. *Towards Robots Conducting Chemical Experiments.*, International Conference on Intelligent Robots and Systems (IROS), 2015, Hamburg, Germany.
2. **Gheorghe Lisca**, Pangyu Jeong, Sergiu Nedevschi. *Automatic one step extrinsic calibration of a multi layer laser scanner relative to a stereo camera.* ICCP 2010, Cluj-Napoca, Romania.

Invited Presentations

EXPLAINED at Microsoft Berlin

Cognitive APIs enabling Social robots in health care.

Nov 2017

Bremen goes digital

Showcase the usage of social robots in health care.

Nov 2017

Ocean Sampling Day

Live demonstration of PR2 robot performing few steps of DNA extraction procedure.

Nov 2014

Interantional Research Projects

REFILLS - team member

Jan 2017 - Dec 2020

Research robotic systems for store shelves monitoring and refilling and in-store logistics.

SHERPA - team member

Jan 2017 - Dec 2020

Research a team of robotic systems ground and aerial to support search and rescue activities in hostile or hazardous environments.

RoboHow - team member

Feb 2012 - May 2016

Research knowledge-enabled and plan-based control for robots performing everyday activities by following instructions from World Wide Web and from human demonstrations.

ACat - team member

Mar 2013 - Apr 2016

Research the modeling of abstract, functional knowledge about relations between actions and objects and speedup the programming of the robot which must perform them.

SAPHARY - team member

Nov 2011 - Oct 2015

Research techniques which enable robots to track, understand and predict human motions in a weakly structured dynamic environment in real-time.

INTERSAFE-2 - team member

Jun 2008 - May 2011

Research an intersection safety system able to reduce the number of accidents at intersections by developing a risk assessment system warning and intervention functions for vehicles.

Program Committee Member

The AAAI-14 Workshop on Artificial Intelligence and Robotics Québec, Canada

Jul 2014

September 6, 2019