# ANDREEA-ROXANA TULBURE Address: Limmattalstrasse 1, 8049 Zürich, Switzerland Phone: +41-768142572 tulbure@mavt.ethz.ch



# EDUCATION

#### 10.2016 - 10.2019 MASTER OF SCIENCE, KARLSRUHE INSTITUTE OF TECHNOLOGY, KARLSRUHE, GERMANY

Major in Robotics and Automation and Cognitive Systems and Antrophomatics, Graduation with Distinction: 1.1/1.0 (german system)

# 10.2012 - 07.2016 BACHELOR OF SCIENCE, TECHNICAL UNIVERSITY OF CLUJ NAPOCA,

ROMANIA

Course of studies: Automation and Applied Computer Science Graduation with Distinction 9.46/10.0 (romanian system)

# EXPERIENCE

## 10.2019 - PRESENT

ROBOTIC SYSTEMS LAB, ETH ZÜRICH, ZÜRICH, SWITZERLAND Research Assistant: Visual Servoing for Legged Robots Using Model Predictive Control

## 12.2018 - 09.2019

ARTIFICIAL INTELLIGENCE LAB, STANFORD UNIVERSITY, CALIFORNIA, USA

Visiting Student Researcher: Real-time Occluded Obstacle Avoidance using Artificial Potential Fields from Point Cloud Data

## 12.2017 - 11.2018

GERMAN AEROSPACE CENTER (DLR), OBERPFAFFENHOFEN, GERMANY Working Student: Deep Learning for Robust Material Classification with a Tactile Robot Skin

## 02.2016 - 04.2016 AND 11.2016 - 02.2018

KARLSRUHE INSTITUTE OF TECHNOLOGY, KARLSRUHE, GERMANY Research Assistant:

- Velocity control using a force-torque sensor for physical human-robot interaction
- CAN driver implementation using ros-canopen (e.g. for ATI MINI force-torque sensors)

**06.2015 - 09.2015** ROBERT BOSCH ROMANIA SRL, CLUJ NAPOCA, ROMANIA Working Student: Development of a user interface for a photovoltaic inverter

## 11.2014 - 06.2015

TECHNICAL UNIVERSITY OF CLUJ NAPOCA, ROMANIA Member of the research project team "Vision-based quadrotor navigation around objects"

#### 11.2014-04.2015

MSG SYSTEMS ROMANIA SRL, CLUJ NAPOCA, ROMANIA Associate IT Consultant

#### 03.2014 - 06.2014

TECHNICAL UNIVERSITY OF CLUJ NAPOCA, ROMANIA Member of the research project team "iEnergy"

## **EXCHANGE PERIODS**

## 12.2018 - 09.2019

ARTIFICIAL INTELLIGENCE LAB, STANFORD UNIVERSITY, CALIFORNIA, USA

Visiting Student Researcher (interAct scholar)

#### 04.2018-04.2018

ITMO UNIVERSITY OF ST. PETERSBURG, ST. PETERSBURG, RUSSIA Exchange Student "Approaches to Design of Estimation Algorithms for Processing of Navigation Data" workshop participant

## 10.2015-04.2016

KARLSRUHE INSTITUTE OF TECHNOLOGY, KARLSRUHE, GERMANY Erasmus Exchange Student at the Department of Computer Science

## 07.2014 - 09.2014

MSG SYSTEMS PASSAU, PASSAU, GERMANY

Erasmus Intern: Development of an application for the insure field in SAP Hana

## AWARDS, MEMBERSHIPS, COMPETITIONS AND VOLUNTARY SERVICE

02.2020	ETH Zürich team member, at the "Mohamed Bin Zayed International Robotics Challenge" in Abu Dhabi, UAE
Since 12.2018	IEEE Student Member
02.2018	Winner of the "DAAD Award 2018"
06.2017-12.2018	Member of the managing board of the Academic Flight Group at the Karlsruhe Institute of Technology
07.2016	Distinction "Best Student of the Graduation Year 2016 attending the course of studies 'Automation and Applied Computer Science'" – Valedictorian
11.2014-11.2015	Member of the Department Council at the Department of Automation and Computer Science of the Technical University of Cluj Napoca
05.2014, 05.2015	Finalist at the national BattleLab Robotica Competition in 2014 and 2015
04.2015	Finalist at the Continental Technical Contest 2015 "Autonomous Vehicle Design and Implementation"

02.2015-12.2016	Member of the Romanian National Sailplane Club Cluj - 10.2015: Receipt of the Sailplane Pilot License
06.2014	One-month research scholarship from the Technical University of Cluj Napoca due to the good results during the "iEnergy" project
05.2014	3 <sup>rd</sup> Prize at the Students Conference of the Department of Mechanics of the Technical University of Cluj Napoca

## LANGUAGES

Hungarian (mother tongue) German, TestDAF, C2 English, Cambridge Certificate in Advanced English, C1 Romanian, C2 French, B1

## LIST OF PUBLICATIONS

#### ACCEPTED

- A. Tulbure, Real-time collision avoidance using point cloud data, 2019 Robotics: Science and Systems (RSS), workshop contribution https://drive.google.com/open?id=15wdg2HfmU lu38DPgc3P3tPkSthD0XnZ
- 2. B. Baeuml and A. Tulbure, Deep n-Shot Transfer Learning for Tactile Material Classification with a Flexible Pressure-Sensitive Skin, 2019 IEEE International Conference on Robotics and Automation (ICRA)
- 3. A. Tulbure and B. Baeuml, Superhuman Performance in Tactile Material Classification and Differentiation with a Flexible Pressure-Sensitive Skin, 2018 IEEE-RAS 18th International Conference on Humanoid Robots (Humanoids)
- 4. S. Ottenhaus et al., Exploration and Reconstruction of Unknown Objects using a Novel Normal and Contact Sensor, 2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)
- 5. A. Tulbure et al., Hardware latency investigation for an autonomous miniature vehicle, 2017 40th International Spring Seminar on Electronics Technology (ISSE)

#### SUBMITTED

- 6. A. Tulbure et al., A Fast Receding Horizon Formulation for Visual Servoing to a Door Handle with a Four-Legged Robot, 2020 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)
- 7. A. Tulbure and O. Khatib, Closing the Loop:Real-Time Perception and Control for Robust Collision Avoidance with Occluded Obstacles, 2020 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)