

## Andreas Johannes Häusler

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TITLE	Diplom-Informatiker Univ. (German degree, equivalent to MSc. Comp. Science)	
UNIVERSITY CONTACT	Instituto Superior Técnico Instituto de Sistemas e Robótica Dynamical Systems and Ocean Robotics Lab Torre Norte, 8-17 Avenida Rovisco Pais N° 1 1049-001 Lisboa, Portugal Office Phone: 00351 21 841-8088 Fax: 00351 21 841-8291 ahaeusler@isr.ist.utl.pt <a href="http://www.isr.ist.utl.pt">http://www.isr.ist.utl.pt</a>	
PRIVATE CONTACT	Rua Cidade de Liverpool N° 2, c/v esq. 1170-097 Lisboa, Portugal Private Phone: 00351 21 0968234 Mobile Phone: 00351 96 9984871 a.haeusler@informagic.org <a href="http://www.informagic.org">http://www.informagic.org</a>	
SCIENTIFIC INTERESTS	Planning Tools for Multiple Autonomous Robots Path and Trajectory Optimization Mission Planning and On-Line Replanning Autonomous Marine Vehicles, Autonomous Robotics Sea Exploration	
ACADEMIC EXPERIENCE	<b>Instituto Superior Técnico (IST)</b> Lisbon, Portugal      Dynamical Systems and Ocean Robotics Lab (DSOR)	
AUG. 2010 – PRESENT	<i>Phd Student</i> Thesis Topic: Mission Planning for Multiple Cooperative Robotic Vehicles Supervisor: Prof. António M. Pascoal, PhD	
AUG. 2007 – JULY 2010	<i>Marie Curie Early Stage Researcher</i> Task: Cooperative Marine Vehicle Navigation within project <i>FREE<sub>sub</sub>NET</i> of the European Community Supervisor: Prof. António M. Pascoal, PhD	
	<b>Technische Universität München (TUM)</b> Garching, Germany      Cognitive Robotics Group (CogBotLab)	
FEB. 2007 – AUG. 2007	<i>Research Assistant</i> Task: General work in the fields of Reinforcement Learning, Neural Nets and Artificial Evolution Supervisor: Prof. Dr. Jürgen Schmidhuber	

ACADEMIC EXPERIENCE  
(CONTINUED)

**Technische Universität München (TUM)**

Garching, Germany

Intelligent Autonomous Systems Group (IAS)

SEPT. 2006 – JAN. 2007

*Research Internship*

Task: Learning the Inverse Kinematics for a 6 DOF Robot Arm

Supervisors: Prof. Michael Beetz, PhD; Alexis Maldonado, Dipl. Eng.

FEB. 2006 – MAY 2006

*Student Assistant*

Task: Providing assistance in the development of a software for automatic player tracking in soccer videos

Supervisor: Prof. Michael Beetz, PhD

AUG. 2005 – JAN. 2006

*Diploma Thesis*

Title: Designing Libraries of Transparent, General and Restartable Plans for a Simulated Autonomous Service Robot

Supervisors: Prof. Michael Beetz, PhD; Armin Müller, Dipl. Inf.

Content: The research covered the design of plan libraries for a simulated robot acting in a kitchen environment. A great emphasis had been put on generality and restartability as well as robustness of the activity plans.

The thesis has been graded with 1.0.

**Ludwig-Maximilians-Universität München (LMU)**

Munich, Germany

Chair for Programming and Modelling Languages (PMS)

SEPT. 2006 – JAN. 2007

*Research internship*

Task: Schema-Based Rewriting of XML Queries

Supervisors: Prof. Dr. François Bry; Tim Furche, Dipl. Inf.; Sacha Berger, Dipl. Inf.

MARCH 2003 – JULY 2003

*Student Assistant*

Task: Supporting exercise groups of students and grading their homeworks and exams within the scope of a lecture about formal languages, automata theory, theory of computing and complexity theory

Supervisors: Prof. Dr. François Bry; Dr. Norbert Eisinger

EDUCATION

**Ludwig-Maximilians-Universität München (LMU)**

Munich, Germany

SEPT. 2006

Graduation in Computer Science; grade 1.2  
(on a scale from 1.0 to 5.0 where 1.0 is best)

MAY 2003 – SEPT. 2006

Hauptstudium (MSc. level), Computer Science

Main focus on robotics and theoretical computer science with minor subject “Logic and Theory of Science”

OCT. 2001 – APRIL 2003

Grundstudium (BSc. level), Computer Science

Completed with intermediate exam; grade 1.6

PROFESSIONAL EXPERIENCE

**msg systems ag**

(The msg systems ag is a 2.000 person firm specialized in the development of standard software for insurance companies.)

Ismaning, Germany

JULY 2002 – FEB. 2005

*Student Trainee*

Tasks: General assistance in programming and software analysis; within this scope four projects on own responsibility:

APRIL 2004 – SEPT. 2004

Building of a Datatype Mismatch Tool for DB2

OCT. 2003 – APRIL 2004

Developing a central project documentation and a simple documentation language for integration in C and PL/1 files

APRIL 2003 – OCT. 2003

Implementation of an automated reporting tool for the project monitoring and management team

FEB. 2003 – APRIL 2003

Building a tool for copying and saving of table entries of a DB2 database system

## PUBLICATIONS

*In the following, the five main publications are outlined in bold font.*

## CONFERENCE PAPERS

A. J. Häusler, R. Ghabcheloo, A. M. Pascoal and A. P. Aguiar. ***Multiple Marine Vehicle Deconflicted Path Planning with Currents and Communication Constraints.*** 7th IFAC Symposium on Intelligent Autonomous Vehicles (IAV). Lecce, Italy, Sept. 2010.

A. Aguiar, J. Almeida, M. Bayat, B. Carneira, R. Cunha, A. Häusler, P. Maurya, A. Oliveira, A. Pascoal, A. Pereira, M. Rufino, L. Sebastio, C. Silvestre, and F. Vanni. *Cooperative Control of Multiple Marine Vehicles: Theoretical Challenges and Practical Issues* Proc. of MCMC 2009 - 8th Conference on Manoeuvring and Control of Marine Craft. Guaruj (SP), Brazil, Sept. 2009

A. J. Häusler, R. Ghabcheloo, A. M. Pascoal, A. P. Aguiar, Isaac I. Kaminer and Vladimir N. Dobrokhodov. ***Temporally and Spatially Deconflicted Path Planning for Multiple Autonomous Marine Vehicles.*** Proc. of MCMC 2009 - 8th Conference on Manoeuvring and Control of Marine Craft. Guaruj (SP), Brazil, Sept. 2009

A. Aguiar, J. Almeida, M. Bayat, B. Carneira, R. Cunha, A. Häusler, P. Maurya, A. Oliveira, A. Pascoal, A. Pereira, M. Rufino, L. Sebastio, C. Silvestre and F. Vanni. ***A Cooperative Autonomous Marine Vehicle Motion Control in the scope of the EU GREX Project: Theory and Practice.*** Proc. of OCEANS 2009 IEEE Bremen. Bremen, Germany, May 2009.

A. J. Häusler, Reza Ghabcheloo, Isaac Kaminer, A. M. Pascoal and A. P. Aguiar. ***Path Planning for Multiple Marine Vehicles.*** Proc. of OCEANS 2009 IEEE Bremen. Bremen, Germany, May 2009.

S. Berger, F. Bry, T. Furche and A. J. Häusler. *Completing Queries: Rewriting of Incomplete Web Queries under Schema Constraints.* First International Conference on Web Reasoning and Rule Systems (RR2007), LNCS 4524, pp. 319 – 328. Innsbruck, Austria, June 2007.

## CONFERENCE POSTERS

A. J. Häusler. ***Deconflicted Path Planning for Multiple AUVs.*** CIÊNCIA 2010 – Encontro com a Ciência em Portugal. Lisbon, Portugal, July 2010.

## PROJECT MEMBERSHIPS

APRIL 2011 – PRESENT

CONAV (Projekt financed by the Fundao para a Cincia e a Tecnologia (FCT))  
Task: Development of a mission planning tool for a new type of autonomous underwater vehicle (AUV)

FEB. 2009 – PRESENT

Co<sup>3</sup>-AUVs (European project of the Seventh Framework Programme (FP7), targeted at human-robot interaction under water)  
Task: Extensively test recent results in multiple AUV path planning, taking into account various mission-relevant constraints.

AUG. 2007 – JULI 2010

*FREE*<sub>sub</sub>*NET* (European project of the FP6, targeted at the development of intervention AUVs)  
Task: Addressing the topic of multiple AUV path and mission planning; furthermore task leader role for Task 3.4, “Algorithms and sensor integration for vehicle and target positioning”.

APRIL 2008 – NOV. 2009

GREX (European project of the FP6, targeted towards multiple AUV missions in heterogeneous vessel networks)  
Task: Responsible for some of the software modules for hardware-in-loop simulation during sea trials

SEPT. 2006 – JAN. 2007

CoTeSys (Cluster of Excellence of the Technical University of Munich)  
Task: Implementing the inverse kinematics for a robot arm with six degrees of freedom

SEPT. 2006 – JAN. 2007

REWERSE (European project of the FP6, targeted towards semantic web query languages)  
Task: Schema-based rewriting of XML queries in the scope of schema-based knowledge systems

## AWARDED SCHOLARSHIPS

- JUNE 2011 Travel and lodging scholarship of the German Scholars Organization e.V. (GSO) for participation at the 2011 “Building Bridges” career conference.
- APRIL 2010 – PRESENT Bolseiro da Fundao para a Cincia e a Tecnologia (FCT).  
(The FCT is a nation-wide Portuguese science foundation that, among other tasks, provides scholarships for PhD students and finances scientific projects in all areas.)
- AUG. 2007 – JULY 2010 Marie Curie Early Stage Researcher within the Marie Curie Research Training Network (MC-RTN) *FREE*<sub>sub</sub>*NET* of the European Union under the 6th Framework Programme (FP6).

## SPECIAL QUALIFICATIONS

- LANGUAGES German (native speaker)  
English (fluent)  
Portuguese (working knowledge)  
Hawaiian (absolute beginner; learning out of interest)
- CERTIFICATIONS Sun certified Programmer for the Java 2 Platform 1.4  
ODAV Certification “Networks for end users and system administrators”

## MEMBERSHIPS

- JAN. 2003 – PRESENT American Association for the Advancement of Science (AAAS), student member
- SEPT. 2006 – PRESENT Institute of Electrical and Electronics Engineers (IEEE), student member

## EXTRACURRICULAR

- SEPT. 1987 – PRESENT Music lessons (trumpet, later also trombone); member of various musical groups, among others the “Tölzer Stadtkapelle” (marching band of the city of Bad Tölz) under the direction of Josef Kronwitter and the Symphonic Orchestra of the Munich University of Applied Sciences (FHM) under the direction of Prof. Dr. Theodor Schmitt.  
In the scope of these activities gained cultural experience through foreign visits in Japan (2001, 2004), USA (2002), Italy (2003) and Poland (2004).
- DEC. 2006 Bronze and silver certifications of the Musical Federation of Upper and Lower Bavaria (MON) on the trumpet, both with grade 1.0
- FEB. 2010 – PRESENT Accountant for the board of elders of the German Lutheran church in Lisbon (DEKL).
- MAI 2009 – PRESENT Founding member of the church brass band and the choir of the DEKL.
- OCT. 2009 – PRESENT Voluntary activities within the social project “Surf the City – Lisbon”.

## HOBBIES AND OTHER ACTIVITIES

Playing the trumpet and trombone  
Reading, writing poems and short stories  
Natural bodybuilding and sport cycling  
Playing board games  
Travelling around Portugal

## PERSONAL INFORMATION

Born on November 16, 1980 in Munich, Germany  
Married to Melanie Häusler  
One daughter