

**DESIRED POSITION** Machine Learning Engineer

## Personal Information

**FIRST NAME / SURNAME** Moritz Hamann  
**EMAIL** me@moritzhamann.com  
**NATIONALITY** German  
**DATE OF BIRTH** 11.05.1988

## Education

**DATES** 2012 - 2016  
**QUALIFICATION AWARDED** Master of Science, Informatik (Computer Science)  
**PRINCIPAL STUDIES**

- Machine Learning & Computer Vision
- Scientific simulation and High Performance Computing
- Scientific visualization and rendering

**THESIS** *"Design and Implementation of an Adaptive Compression Framework for scientific simulation data"*  
**PUBLICATIONS** *"Analyzing the Effect and Performance of Lossy Compression on Aeroacoustic Simulation of Gas"* (MDPI, Publication in progress)  
**UNIVERSITY** University of Stuttgart

**DATES** 2009 - 2012  
**QUALIFICATION AWARDED** Bachelor of Science, Technische Kybernetik (Control Science)  
**PRINCIPAL STUDIES**

- Dynamic systems analysis
- Design and simulation of control algorithms
- (Multi-) Robot systems

**THESIS** - "Conception and Implementation of a FDI mechanism for the ACS of a small satellite"  
**UNIVERSITY** University of Stuttgart

## Skill & Competences

### **MACHINE LEARNING & COMPUTER VISION**

- Bayesian belief networks
- Reinforcement learning
- Supervised learning methods, exp. linear regression and clustering, but also neural networks, kNN clustering and decision trees
- SLAM and path planning methods
- Optical flow estimation via global variational methods
- Feature extraction (SIFT) and tracking

### **SCIENTIFIC COMPUTING & VISUALIZATION**

- Numeric solvers for ODE systems
- Distributed computation in C++ using MPI
- Design and simulation of control algorithms in Matlab and Simulink

### **GENERAL PROGRAMMING**

- Extensive knowledge of C and C++, including template based programming and the STL
- Professional experience in most scripting languages including Python, Ruby (+ Ruby on Rails) and Javascript (Browser + Node.js)
- Experience in asynchronous and event based programming concepts
- Relational database design
- Linux server administration
- Revision Control Systems (GIT)
- Knowledge about common web security strategies

### **LANGUAGES**

- German & English, fluent
- French, limited proficiency

### **SOFT SKILLS**

- Project leader on multiple occasions at deeprr
- Internal training sessions for junior developers
- Coordination and supervision of several development trainees at deeprr
- 3 years of experience in a startup environment

## Work Experience

<b>DATES</b>	April 2014 - February 2017
<b>POSITION</b>	Working Student, Full stack Web Developer
<b>RESPONSIBILITIES</b>	<ul style="list-style-type: none"><li>- Development of Wordpress themes and plugins</li><li>- progressive Web Applications using Ember.js and AngularJS</li><li>- low latency web applications build with Node.js</li><li>- Automated build scripts for the Raspberry Pi</li><li>- Technical consulting on an IT Recruiting strategy for the <i>Bosch Karriere</i> Facebook page</li></ul>
<b>EMPLOYER</b>	deepr
<b>WEB</b>	<a href="http://www.deepr.de">www.deepr.de</a>
<b>DATES</b>	August 2015 - September 2015 June 2014 - November 2014 April 2012 - July 2013
<b>POSITION</b>	Working Student
<b>RESPONSIBILITIES</b>	<ul style="list-style-type: none"><li>- Introduction of Redmine as a Ruby on Rails based project management tool for the R&amp;D department</li><li>- Development of custom Redmine plugins to track and analyse project budgets, and allow a synchronization with MS Project</li><li>- Porting and extending a legacy MS Access application to a newer Version</li></ul>
<b>EMPLOYER</b>	REFU Elektronik
<b>WEB</b>	<a href="http://www.refu-elektronik.de">www.refu-elektronik.de</a>
<b>DATES</b>	Januar 2012 - April 2012
<b>POSITION</b>	Research Assistant
<b>RESPONSIBILITIES</b>	<ul style="list-style-type: none"><li>- Integration of an Extended Kalman Filter into the Simulink Model of the Attitude Control System of a small satellite</li><li>- Matlab GUI application for a semi-automatic detection of anomalies in power measurements</li></ul>
<b>EMPLOYER</b>	Institute of Space Stations, University of Stuttgart
<b>WEB</b>	<a href="http://www.irs.uni-stuttgart.de">www.irs.uni-stuttgart.de</a>