

# ULRICH SCHAECHTLE

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Department of Computer Science ◊ Royal Holloway, University of London ◊ Egham, Surrey, United Kingdom

## EDUCATION

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### **Doctor of Philosophy, Royal Holloway, University of London**

2011 - now

*Causal Discovery with Relational Learning*

*London, UK*

- Fully funded position
- Part of the EU project “Continuous Multi-layered and Multi-parametric Analysis of Diabetes Type 1 & 2”

### **Master of Science, Imperial College London**

2010 - 2011

*Computing (Artificial Intelligence)*

*London, UK*

- I completed the Master of Science in September, 2011. The taught courses of the MSc programme included among others the following lectures:
  - Machine Learning, Machine Learning & Neural Computation, Intelligent Data Analysis & Probabilistic Inference, Ontologies and the Semantic Web, Computational Neurodynamics, etc...

### **Bachelor of Science, University of Duisburg-Essen**

2007 - 2010

*Applied Cognitive and Media Science*

*Duisburg, D*

- Undergraduate Degree in Applied Cognitive and Media Science, Bachelor of Science, Germany, 2010. Overall grade: 1.5 -A (equivalent to BSc (Hons.))

## SELECTED SOFTWARE PROJECTS

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### **A data-driven diagnosis component for the AI layer of the COMMODITY<sub>12</sub> project**

2013

- The software supports sensor-based patient management by implementing a framework for reasoning about observations over time by building upon existing state-of-the-art in time series analysis and machine learning techniques for prediction.

### **Multi-Dimensional Causal Discovery**

2013

- This is an implementation of our method for learning causal relations within high-dimensional tensor data as they are typically recorded in non-experimental databases. The method allows the simultaneous inclusion of numerous dimensions within the data analysis such as samples, time and domain variables construed as tensors.

### **Logical Agents for Medical Advice (LAMA)**

2012

- In LAMA, an intelligent software agent is provided with knowledge about a medical domain to support diagnostic reasoning, advice and monitoring of the patient’s conditions.

### **MSc project**

2011

- I applied and developed new machine learning algorithms to time series of movement data of flies filmed by a video camera. The aim of the project was to design a programme for the analysis of these continuous, non-linear and time-dependent data sets to differentiate trajectories and determine genetic differences among the flies.

### **A Robot Rabbit as Vocabulary Trainer for Beginners of English**

2009

- We used the Java API of the robot rabbit Nabaztag to create an interactive vocabulary trainer for beginners of English.

## EXPERIENCE

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### **University of Duisburg-Essen**

*Student Research Assistant*

2009 - 2010

*Duisburg, D*

- Student assistant at the faculty of General Psychology: Cognition. My duties here included:
  - help to edit scientific papers
  - evaluate complex data from neuroscientific experiments
  - conduct experiments

### **University of Duisburg-Essen**

*Teaching Assistant*

2008 - 2010

*Duisburg, D*

- Teaching assistant for the lecture course Inferential Statistics at the faculty of General Psychology: Cognition, October 2008 to March 2009. I was responsible for approximately 60 younger undergraduate students to:
  - communicate complex formulae and explain software
  - create teaching materials
- Teaching assistant for the lecture course Descriptive Statistics at the faculty of Business Psychology, February 2008 to August 2008. Duties were the same as above.

### **Military service**

*Soldier*

2005 - 2007

*Europe*

- The tough training of a German infantry soldier and combat engineer taught me about:
  - strong team working because I have been with my group 24 hours a day, over several weeks without a break as part of the training in Germany, France, Belgium and Cape Verde.

### **Qualspec Asia Ltd, Hong Kong**

*Trainee*

2005

*Hong Kong, China*

- Manufacturing audits for Western clients across Southern China.

## TECHNICAL STRENGTHS

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### **Programming**

Matlab (expert), Java (proficient), Prolog (proficient), C (prior experience)

### **Databases**

MySQL, PostgreSQL, Oracle SQL

### **Tools**

SVN, GIT, Bash-Script, VirtualBox

## PUBLICATIONS

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**Please find an up-to-date list of publications on my website:**

- [www.schaechtle.com/Pubs.html](http://www.schaechtle.com/Pubs.html)

## INTERESTS AND ACHIEVEMENTS

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### **Student body representation for the subject “Applied Cognitive and Media Science”**

*Elected President*

2009 - 2010

*Duisburg, D*

- Elected for an entire academic year, commitment in the representation for three years.
- Representing more than 600 students.