

# Curriculum Vitae

## General information

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Name: Tamas Madl  
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## Current Position

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Research Assistant – Austrian Research Institute for Artificial Intelligence (OFAI)  
Freyung 6/6, A-1010 Wien, Austria

External Researcher – Cognitive Computing Research Group (CCRG)  
University of Memphis, Memphis TN-38152, USA

## Main Areas of Research

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Cognitive modelling and cognitive architectures, neural computing, agent-based AI

## Academic Career

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- July 2011 – December 2011 Development of a context-aware cognitive software agent simulating a mobile assistive robot for elderly or sick patients, based on the LIDA (Learning Intelligent Distribution Agent) cognitive architecture (at the Austrian Research Institute for Artificial Intelligence, OFAI)
- January 2011 – July 2011 (half-time) Development of a computational model of the attentional blink based on the LIDA model (University of Vienna). In cooperation with Dr. Stan Franklin and the CCRG group at the University of Memphis. Paper (see below): *Madl & Franklin (2012)*
- September 2010 – December 2010 (half-time) Computational modeling of human perceptual decision making using a LIDA-based agent (Comenius University Bratislava). In cooperation with Dr. Stan Franklin and the CCRG group at the University of Memphis.
- July 2010 – September 2010 (full-time) Computational cognitive architectures research at the CCRG (development of a LIDA-based agent, adjustment of parameters to neuroscientifically plausible values). Supervisor: Dr. Stan Franklin. Paper (see below): *Madl, Baars & Franklin (2011)*.
- April 2010 – June 2010 (half-time) Computational modeling of the evolution of cooperation in a prehistoric society (University of Vienna). Supervisor: Dr. Karl Sigmund

## Education

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- October 2009 - June 2011 MSc MEi:CogSci (Master's in Cognitive Science) at the University of Vienna (Most relevant modules: Computational Models of The Mind, Machine Learning & Neural Computation, Neuroscience, Philosophy, Psychology, Models of Personality & Emotions, Statistics)
- September 2008 – May 2009 BSc (Hons) Computing at the University of Central Lancashire in Preston, UK – first class with honours (Most relevant modules: Advanced Software Engineering, Artificial Neural Networks, Object Oriented Methods, Data Warehousing)  
(Direct entrance into the 3<sup>rd</sup> year - the subjects at the Higher Technical Institute Spengergasse corresponding to the first two years at the University of Central Lancashire were recognised)
- 2003-2008: Higher Technical Institute Spengergasse, Electronic Data Processing Department, Vienna, Austria (Specialisation: Computer networking, Electronics & Robotics)

## Employment History

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- July 2011 – Research assistant at the Austrian Research Institute for Artificial Intelligence (OFAI) Vienna
- October 2011 – August 2011 Part-time job as a web programmer for intevo GmbH (PHP, JS/extJS, AJAX, SQL, HTML 5, CSS)
- October 2009 - June 2010 Part-time job as a web programmer for biz:Consult GmbH (PHP, JS, AJAX, SQL, HTML, CSS)
- September 2008 - April 2009 Part-time job as a web programmer for Skypark Secure (PHP, AJAX)
- August 2008: Internship at the OnTec-Company in Vienna (Java, JSP and JS)
- Summer 2007: Designing the SoftJobs website ([www.softjobs.eu](http://www.softjobs.eu))
- August 2006: Internship at the company Qualysoft in Hungary  
Web project in C#, ASP.NET and Flash ActionScripts
- August 2005: Internship at Schrack Seconet AG in Vienna, Austria
- July 2005: Designing the Hungarolmmo website ([www.hungarolmmo.com](http://www.hungarolmmo.com))

## Academic Prizes & Awards

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Scholarship of Achievement 2010 and 2011 (University of Vienna)

2<sup>nd</sup>, 3<sup>rd</sup> and 5<sup>th</sup> place at the Austrian Physics Olympiad (2008, 2007, 2006)

## Publications

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Madl, T., Baars, B.J. & Franklin, S., 2011. The Timing of the Cognitive Cycle. *PLoS ONE*, 6(4), p.e14803.

Madl, T. & Franklin, S., 2012. A LIDA-based Model of the Attentional Blink. *International Conference on Cognitive Modeling (ICCM) 2012*

Franklin, S., D'Mello, S., Snider, J., Madl, T., submitted. LIDA: A Systems-level Architecture for Cognition, Emotion, and Learning. *IEEE Transactions on Autonomous Mental Development*.

## Conferences Attended

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June 2011                      Middle European Interdisciplinary Cognitive Science Conference (Ljubljana, Slovenia): Conference Talk (*Tuning and Verifying a Psychologically Plausible Cognitive Architecture*)

June 2010                      Middle European Interdisciplinary Cognitive Science Conference (Dubrovnik, Croatia): Poster presentation (*An Agent-Based Social Simulation of the Evolution of Cooperation*)

## Professional Qualifications

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Significant programming experience in:

- C# .NET
- C and C++
- Java
- SQL, PL/SQL
- MATLAB
- Web programming: HTML, XHTML, JavaScript & AJAX & extJS, CSS, Flash ActionScripts, PHP, JSP

Certificates:

- GRE 660 (Verbal Reasoning) / 760 (Quantitative Reasoning)
- IELTS (Academic, 8.0 overall band score)
- Cisco ITEssentials II
- Cisco CCNA 1, 2, and 3

## Languages

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Native speaker in German and Hungarian, fluent in written and spoken English