

# Curriculum Vitae

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## Personal Information

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- **Surname:** Warden
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- **Web Site:** <http://www.tzi.de/~warden>
- **Date of Birth:** 29/09/1980
- **Place of Birth:** Tönisvorst, Germany
- **Nationality:** German
- **Marital Status:** Single



## Professional Preparation & Appointments

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### 〈 09/2008 – 12/2008 〉 **University of Miami**

Department of Computer Science – <http://cs.miami.edu> – Miami, FL (USA)

- Visiting Researcher (funded by the German Research Foundation (DFG) within the Collaborative Research Centre 637) at the Department of Computer Science.
- Research on knowledge-based systems, scene interpretation and applications of A.I. and multiagent-technologies in autonomous logistics.

### 〈 01/2008 – present 〉 **Universität Bremen**

Center for Computing Technologies (TZI), Department for Mathematics and Computer Science – Bremen, Germany

- Research Assistant for the Collaborative Research Centre 637 *Autonomous Cooperating Logistic Processes – A Paradigm Shift and its Limitations*, Sub-project B4 *Knowledge Management Supporting Autonomous Logistic Processes* supervised by [Prof. Dr. Otthein Herzog](#)
- Research fields: *Knowledge Management for Cooperating Autonomous Entities, Knowledge Acquisition/Retrieval, Pattern Recognition & Analysis of Dynamic Scenes, Multi-agent based Simulation of Logistic Supply Chains with Self-organization Aspects.*

### 〈 10/2001 – 11/2007 〉 **Universität Bremen**

Department for Mathematics and Computer Science – Bremen, Germany

- Diploma studies in *Computer Science* (Diplomstudiengang Informatik), major fields of study: *Artificial Intelligence, Knowledge Representation, Software Development, Wearable Computing*
- Title of master's thesis (Diplom): "*Spatio-Temporal Analysis of Dynamic Scenes in the RoboCup 3D Soccer Simulation League*", Advisor: [Dr. habil. Ubbo Visser](#)

⟨ **11/2001 – 09/2003** ⟩ **Universität Bremen**

Department for Mathematics and Computer Science – Bremen, Germany

- Bachelor studies in *Digital Media*
- discontinued in favor of computer science studies

⟨ **08/1991 – 06/2000** ⟩ **Gymnasium Fabritianum**

German secondary school – Krefeld, Germany

- received general qualification for university entrance (Abitur) in 06/2000, final grade: 1.2

## Civil/Military Service

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⟨ **07/2000 – 05/2001** ⟩ **Civil Service, Altenheim Wilhelmshof** – Krefeld, Germany

- civil service in an old people's home with mixed duties such as reception service, editor of the monthly home paper, management of the cafeteria and individual care for the residents.

## Teaching

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⟨ **Winter Term 2008** ⟩ **University of Miami**

Guest Lecture – Miami, FL (USA)

- Course Title: *Semantic Web* (CSC 598/CSC 688)
- Lecture on *Ontology Engineering*

⟨ **Summer Term 2008** ⟩ **Universität Bremen**

Tutorial – Bremen, Germany

- Course Title: *Artificial Intelligence 2 – Knowledge Representation and Knowledge Acquisition*
- Tasks: Tutorial + Preparation/Grading of Course Exercises

## Experience

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### 〈 03/2004 – 06/2007 〉 Center for Computing Technologies (TZI), Universität Bremen

Student Assistant – Bremen, Germany

- Working with the "*Intelligent Systems department*" on the development and implementation of the Virtual Werder 3D RoboCup Soccer Simulation League team in the scope of the "*RoboCup Transfer Project*" that was dedicated to a transfer of knowledge and technology from multi-agent research into the local economy. Contributions in *knowledge representation, skill- & behavior development, formulation of framework design principles*.
- Administration of project IT (Linux-based) and maintainance of project web site<sup>1</sup>

### 〈 10/2003 – 10/2005 〉 Center for Computing Technologies (TZI), Universität Bremen

Student Researcher – Bremen, Germany

- Participation in the self-organized 4-term student project "*iWear*" which was concerned with the development of a performant, platform-independent Wearable Computing framework and the realization of applications in the provided runtime environment, amongst others in cooperation with the DaimlerChrysler AG, Werk Bremen (ca. 150.000 lines of code in total).  
Project Supervisor: [Prof. Dr. Otthein Herzog](#).  
Contributions in the areas of *system management, wearable user interfaces and wearable input device development*.  
After the official end of the student project, iWear was turned into an independent open source project<sup>2</sup>.

### 〈 06/2002 – 10/2002 〉 German Dance Film Institute Bremen<sup>3</sup>

Trainee – Bremen, Germany

- Assistance in production and cut of the "*Fifth Tele Dance Journal*", aired on German TV in 2002. Duties comprised 3-machine beta cut for TV, nonlinear cut with Media 100, handling of professional recording equipment (beta standard), transfer of beta material to Web/CD-ROM, development and maintainance of recordings database (Microsoft Access).

### 〈 10/2002 – 01/2004 〉 Research Group 'Computer Graphics & Interactive Systems'

Student Researcher – Bremen, Germany

- Participated in the self-organized 2-term student project "*macS – mediating art in computational Spaces*" that was concerned with a contemporary reinterpretation of early pieces of computer art. Project supervisor: Prof. Dr. Frieder Nake.

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1 Project web site: <http://www.virtualwerder.org>

2 Project web site: <http://projectiwear.org>

3 Institute web site: <http://www.deutsches-tanzfilminstitut.de>

Contributions in the development of algorithms for image generation, 3D visualization using OpenGL, and CGI modeling using the open source Blender animation suite.

## < 11/2002 > University of the Arts Bremen

Student Researcher – Bremen, Germany

- Participated in the design and compilation of introductory CGI-animated trailers for presentations during the international "Profile Intermedia 5" design conference in Bremen, Germany. CGI was done using Autodesk 3D Studio Max.

## Skills

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### ◦ Operating Systems

- ▷ *Apple Mac OS X*: proficient in handling/administration
- ▷ *GNU Linux* (Open Suse, Ubuntu): proficient in handling/administration (small network environments)
- ▷ *Microsoft Windows 2000/XP*: proficient in handling

### ◦ (Object-Oriented) Programming & Development Experience

- ▷ Comprehensive experience in object-oriented software design with project sizes up to 150.000 lines of code, GNU/Emacs-based development, familiar with IDEs (*NetBeans*, *Eclipse*, *Apple XCode*)
- ▷ proficient in *C*, *C++* (incl. *STL*, *Boost*, *GSL*, *Xerces*, parser generation with *Flex/Bison*), *GNU GCC* & *GNU Make*
- ▷ basic experiences with OpenGL programming, refresh required
- ▷ proficient in *Java*, *Apache Ant*
- ▷ experiences with *XML/DTD/XSD*
- ▷ experiences with logic programming using *XSB Prolog*, hybrid *C++/Prolog* development
- ▷ experiences with shell scripting (*Bash*)
- ▷ experiences with handling/administration of version control systems (*CVS*, *Subversion* and *Git*)
- ▷ experiences with basic data visualization (*GNU Plot*)
- ▷ basic experiences with *Objective-C/CoCoa*
- ▷ basic experiences with *OpenGL* programming (requires refresh)

### ◦ Other IT Abilities

- ▷ proficient in document typesetting with *LaTeX*, incl. *BibTex*, *LaTeXBeamer* for papers, reports, presentation slides
- ▷ experiences with web site creation (*HTML/CSS*, *PHP*, *mySQL*) and maintenance
- ▷ basic experiences with the *Open Office Suite*

### ◦ Language Proficiency

- ▷ **German**: mother tongue
- ▷ **English**: fluent in writing and speech

- ▷ **French:** school basics

## Publications

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- Co-authoring and presentation of the paper "*Project iWear – wearable IT Solutions*", received for the IEEE conference "*Mechatronics & Robotics*" 09/2004 in Aachen, Germany.
- Co-authoring of "*Probleme und Chancen der Benutzerschnittstellen bei Wearable Computern*", published as technical report at the "*Research Center for Sustainability Studies (artec)*" at the Universität Bremen in 10/2004. The report critically assessed human-computer-interfaces in the field of wearable computing.
- Co-authoring of the "*Virtual Werder Team Documentation 2006*", published as a technical report at the Center for Computing Technologies (TZI) at the Universität Bremen in 08/2006, which documented the software design principles of the Virtual Werder multi-agent framework.
- Main author and presenter of the paper "*Real-Time Spatio-Temporal Analysis of Dynamic Scenes in 3D Soccer Simulation*", received for the "*RoboCup 2008 Symposium*" 07/2008 in Suzhou, China

## Achievement and Activities

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- Attended a 4-day project management seminar offered by the Center for Computing Technologies (TZI) in 10/2004. The seminar conveyed basic knowledge in the areas of project planning, project execution and project culture.
- Continued active cooperation in the Robocup Soccer Simulation community in order to promote the 3D Soccer Simulation League (viz. patches to Soccer Server and tools, strategy discussions, administrative support during competitions), Participation in RoboCup competitions:

⟨ **10/2007** ⟩ **RoboCup China Open 2007** – Jinan, China

- ▷ Virtual Werder 3D was the only non-Chinese team to reach the quarter finals.

⟨ **07/2007** ⟩ **RoboCup World Championships 2007**<sup>4</sup> – Atlanta, USA

- ▷ Virtual Werder 3D reached the quarter finals, best German team, 2<sup>nd</sup>-best European team.

⟨ **04/2007** ⟩ **RoboCup German Open 2007** – Hannover, Germany

- ▷ Virtual Werder reached the 2<sup>nd</sup> place in the competition, best German team.

⟨ **06/2006** ⟩ **RoboCup World Championships 2006**<sup>5</sup> – Bremen, Germany

- ▷ Virtual Werder 3D reached the quarter finals, best German team.

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4 Dedicated web site: <http://www.robocup-us.org/>

5 Dedicated web site: <http://www.robocup2006.org/start>

- ▷ For this *home game*, extensive support was provided in the administration of the competition IT and conduction of the competition itself.

⟨ **04/2006** ⟩ **RoboCup Dutch Open 2006** – Eindhoven, The Netherlands

⟨ **06/2005** ⟩ **RoboCup World Championships 2005**<sup>6</sup> – Osaka, Japan

- ▷ Home support for the team members on site.

⟨ **04/2005** ⟩ **RoboCup German Open 2005** – Paderborn, Germany

⟨ **06/2004** ⟩ **RoboCup World Championships 2004**<sup>7</sup> – Lisbon, Portugal

- ▷ Home support for the team members on site.

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6 Dedicated web site: <http://www.robocup2005.org/home/default.aspx>

7 Dedicated web site: <http://www.robocup2004.pt/>