

Curriculum Vitae

Harald Schmidl
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Visa status: Permanent resident

Higher Education

Doctorate, 01/98-05/02

Computer Science/Computer Engineering

University of Miami, Coral Gables, FL
Dissertation: Optimization-Based Animation
Advisor: Professor Victor J. Milenkovic

Master of Science, 08/94-05/96

Computer Science

University of Miami, Coral Gables, FL
Thesis: Movement Detection in Video Input and its Translation into MIDI Signals
Advisor: Professor Stephen Murrell

Exchange student, 08/93-08/94

Graduate studies in Physics and Computer Science

University of Miami, Coral Gables, FL

Graduate student, 10/91-08/93

Applied, Experimental and Theoretical Physics

Minor: Medical Physics
Eberhard-Karls Universität, Tübingen, Germany

Bachelor of Science, 11/88-10/91

Physics

Minors: Mathematics and Chemistry
Universität Regensburg, Germany

Academic Experience

Instructor, 08/05-present

Department of Computer Information Technology, Central Carolina Community College

Visiting Assistant Professor, 08/03-08/04

Department of Mathematics and Computer Science, North Carolina Central University

Postdoc, 09/02-07/03

Department of Computer Science, UNC Chapel Hill

Research Assistant, 01/98-07/02

Department of Computer Science, University of Miami

Teaching Assistant, 08/94-05/96

Department of Mathematics and Computer Science, University of Miami

Lab Assistant, 03/92-07/93

Department of Physics, Eberhard-Karls Universität Tübingen, Germany

Courses Taught

- Computer graphics, OpenGL
- Programming logic and design
- Introduction to programming
- Advanced programming principles and algorithms
- GUI design and development
- Systems analysis and design
- Systems project
- Webmastering
- Emerging web technologies
- Windows and office applications (Word, Excel, Powerpoint, Access)
- Calculus
- Experimental physics - mechanics, magnetism and electricity

Programming languages used in teaching

- C/C++
- Java and Java script
- Visual Basic
- Pascal

Publications

Harald Schmidl, "Pseudo-Genetic Algorithmic Composition", GEM 2008.

Bob Joyce and Harald Schmidl, "The Big Brother and Better Early College Grades", SAIS 2008.

Harald Schmidl and Ming C. Lin, "Geometry-Driven Physical Interaction between Avatars and Virtual Environments", Computer Animation and Virtual Worlds Journal, July 2004.

Harald Schmidl and Nolan Walker and Ming C. Lin, "CAB: Fast Collision Culling for Articulated Bodies", Journal of Graphics Tools, Volume 9, Number 2, 2004.

Harald Schmidl and Victor J. Milenkovic, "A Fast Impulsive Contact Suite for Rigid Body Simulation", IEEE Transactions of Visualization and Computer Graphics, March/April 2004.

Harald Schmidl and Ming C. Lin, "Real-time Physically-based Interaction between Avatars and Virtual Environments", tech report TR03-036, UNC Chapel Hill, November 2003.

Victor J. Milenkovic and Harald Schmidl, "Optimization-Based Animation", SIGGRAPH 2001.

Harald Schmidl and Dilip Sarkar, "A Neural Net for Pitch Class Recognition", Applications and Science of Computational Intelligence, 1998.

Research Interests

- Animation
- Virtual reality
- Computer graphics
- Videogames
- Optimization
- Artificial intelligence, genetic algorithms, machine learning
- Creative applications of computers to foreign areas, such as music, visual arts or psychology

Service at Central Carolina Community College

Lee Early College instructor

Four to five year program that allows high school students to get a high school diploma and associates degree simultaneously.

Active learning committee

Quality enhancement plan initiative, 2007.

Programming team coach

CCCC team placed fourth among 14 teams in contest at NC A&T, Greensboro, 2007.

Professional Activities

Reviewer

Siggraph 2000, 2003, 2004

Eurographics 2003, 2005

Consultant

Helped writing a proposal to launch a new Ph.D. program, Department of Computer Science, University of Miami, 2000-2001.

Volunteer

15th annual Symposium on Computational Geometry 1999, Miami Beach, 1999.

Membership

ACM member since 1999.

Treasurer

ACM Student Chapter, University of Miami, 1995.

Awards

Outstanding Graduate Student 1999-2000

Department of Computer Science, University of Miami

Outstanding Teaching Assistant 1995-1996

Department of Mathematics and Computer Science, University of Miami

Non-academic Experience

Tutor, 04/05-06/05

University Instructors, Staunton, VA

Beta tester, 02/01-04/01

CPLEX v7.1beta

Software developer, 08/96-12/97

Vision Intertainment GmbH, Ingolstadt/Germany