Funda Durupınar Babur

CONTACT INFORMATION

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RESEARCH INTERESTS

Computer graphics, animation, autonomous intelligent agents, crowd simulation, simulating psychology of virtual agents

EDUCATION

Bilkent University, Ankara, Turkey

- Ph.D., Computer Engineering, July 2010

  Thesis Topic: *Crowd Simulation with Psychological Factors*

  Advisor: Assoc. Prof. Dr. Uğur Güdükbay

- M.S., Computer Engineering, 2004

  Thesis Topic: *A 3D Garment Design and Simulation System*

  Advisor: Assoc. Prof. Dr. Uğur Güdükbay

Middle East Technical University, Ankara, Turkey

- B.S., Computer Engineering, 2002
- Minor, Psychology, 2002

AWARDS

- Scholarship by TUBITAK (The Scientific and Technological Research Council of Turkey) International Fellowship Programme, 2007
- Full Scholarship, including tuition, stipend, and accommodation by Bilkent University, 2002-2010
- Top 0.01 percentile in National University Entrance Exam, 1997
- Ranked 1st upon graduation from Samsun Anatolian High School, 1997
- Ranked 3rd in Blacksea Region in National TUBITAK Biology Exams, 1996

ACADEMIC AND WORKING EXPERIENCE

University of Pennsylvania, Philadelphia, PA, USA

- Post-Doctoral Researcher, The Center for Human Modeling and Simulation, 2011-Current
- Visiting Research Scholar, The Center for Human Modeling and Simulation, 2007-2008

  Advisor: Prof. Dr. Norman Badler

Bilkent University University, Ankara, Turkey

Teaching Assistant **2002-2010**

Courses taught:

* Algorithms and Programming I-II,
* Introduction to Computing in Engineering and Science,
* Introduction to Object-Oriented Programming,
* Introduction to Computing for Social Sciences,
* Principles of User Interface Design,
* Computer Graphics I-II

Research Assistant **2002-2010**

Participated projects:

* 3DTV- Integrated 3-D Television: Capture, Transmission and Display, *European Council FP6 Network of Excellence Project*, 2004-2008
* Developing an Urban Visualization System for Virtual Environments Using Computer Graphics, *TUBITAK Project*, 2004-2008

TUBITAK-BILTEN
(Information Technologies and Electronic Research Institute), Ankara, Turkey

Summer intern **June-August 2001**

Worked on the testing and integration of an OCR program

Designed and implemented an LDAP client program

Turkish Armed Forces-Middle East Technical University Modeling and Simulation Laboratory, Ankara, Turkey

Summer intern **June-August 2000**

Worked on a radar simulation project

Professional Activities

Program Committee Member

3DTV Conference, 2011

10th International Conference on Intelligent Virtual Agents (IVA 2010)

Reviewer for

IEEE Computer Graphics and Applications

Transactions of the Society for Modeling and Simulation International

Computers & Graphics

Computer-Aided Design

Journal Publications

O. Oguz, F. Durupinar, U. Gudukbay. Dynamic Point-Region Quadtrees for Particle Simulations, Information Sciences, 2012.

F. Durupinar, N. Pelechano, J. Allbeck, U. Gudukbay, N. Badler. How the Ocean Personality Model Affects the Perception of Crowds. *IEEE Computer Graphics and Applications*.pp. 22–31, May/June 2011.

F. Durupinar and U. Gudukbay. Visualization of Crowd Synchronization on Footbridges. *Journal of Visualization*, 3(1), pp. 6977, 2009.

F. Durupinar and U. Gudukbay. Procedural Visualization of Knitwear and Woven Cloth. *Computers and Graphics*, 31(5), pp. 778-783, 2007.

Book Chapters

M. Kapadia, A. Shoulson, F. Durupinar, N. Badler. Authoring Personality and Behavior in Multi-Actor Simulations. In Modeling, Simulation and Visual Analysis of Large Crowds. Springer-Verlag, 2012. (To be published)

U. Gudukbay and F. Durupinar. Three-Dimensional Scene Representations: Modeling, Animation, and Rendering Techniques. In Haldun M. Ozaktas, Levent Onural (Eds.), *Three-Dimensional Television: Capture, Transmission, and Display (ch. 6)*, Springer Verlag, 2007.

Conference Publications

F. Durupinar, J. Allbeck, N. Pelechano, and N. Badler. Creating Crowd Variation with the OCEAN Personality Model. *Proceedings of Autonomous Agents and Multi-Agents Systems (AAMAS'08)*, vol. 3, pp. 1217-1220, 2008.

F. Durupinar and U. Gudukbay. A Virtual Garment Design and Simulation System. *Proceedings of the 11'th International Conference on Information Visualization (IV07)*, pp. 862-867, 2007.

F. Durupinar. Classification of Textures Under Various Lighting and Viewing Conditions. *Proceedings of the 14th Turkish Symposium on Artificial Intelligence and Neural Networks (TAINN'05)*, pp. 169-178, 2005.

F.Durupinar, U. Kahramankaptan and I. Cicekli. Intelligent Indexing, Retrieval and Construction of Crime Scene Photographs. *Proceedings of the 13th Turkish Symposium on Artificial Intelligence and Neural Networks(TAINN'04)*, pp. 297-306, 2004.

Theses

F. Durupinar. From Audiences to Mobs: Crowd Simulation with Psychological Factors. Ph.D. Thesis. 2010.

F. Durupinar. A 3D garment design and simulation system. M.S. Thesis. 2004.

Technical Skills

Programming Languages: C, C++, *C♯*, Pascal, Lisp, Prolog, Scheme, SML/NJ, Delphi, Visual Basic, Matlab, Java, Cg
Libraries: OpenGL, Glut, Cal3d
Hardware: 80x86 Assembly Language, MIPS
Operating Systems: Microsoft Windows, Linux, UNIX
Software: Unity, Matlab

Languages

Turkish (Native)
English (Advanced)

References

Available upon request