

Norman I. Badler Biographical Sketch

Director, Center for Human Modeling and Simulation
Professor, Computer and Information Science Department
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Professional Preparation:

BA 1970 Creative Studies (Mathematics), University of California, Santa Barbara
MSc 1971 Mathematics, University of Toronto
PhD 1975 Computer Science, University of Toronto

Appointments:

Univ. of Pennsylvania, Assistant Professor, 1974-79
Associate Professor, 1979-86; Professor, 1987-present,
Cecilia Fidler Moore Professor and Chair, CIS, 1990-94.
Associate Dean, School of Engineering and Applied Science, 2001-present.
Secondary appointment in Bioengineering.

Selected Publications:

- L. Zhao and N. Badler. "Acquiring and validating motion qualities from live limb gestures." *Graphical Models* 67(1), 2005, pp. 1-16.
- S. Lee, J. Badler and N. Badler. "Eyes alive," *ACM Transactions on Graphics - Special Issue, Proceedings of SIGGRAPH 2002*, San Antonio, TX, pp. 637-644.
- S. Chopra-Khullar and N. Badler. "Where to look? Automating attending behaviors of virtual human characters," *Autonomous Agents and Multi-agent Systems* 4(1/2), 2001, pp. 9-23.
- J. Allbeck and N. Badler. "Embodied Autonomous Agents," In K. Stanney (Ed.), *Handbook of Virtual Environments*. Lawrence Erlbaum Associates, New York, 2002, pp. 313-332.
- N. Badler, R. Bindiganavale, J. Allbeck, W. Schuler, L. Zhao, M. Palmer. "Parameterized Action Representation for virtual human agents," In J. Cassell, J. Sullivan, S. Prevost, and E. Churchill (Eds.), *Embodied Conversational Agents*, MIT Press, 2000, pp. 256-284.

Other Publications:

- N. Badler, M. Palmer and R. Bindiganavale. "Animation control for real-time virtual humans," *Comm. of the ACM* 42(8), August 1999, pp. 65-73.R.
- D. Chi, M. Costa, L. Zhao, and N. Badler. "The EMOTE model for Effort and Shape," *Proc. ACM SIGGRAPH*, New Orleans, LA, July, 2000, pp. 173-182.
- R. Bindiganavale, W. Schuler, J. Allbeck, N. Badler, A. Joshi, and M. Palmer. "Dynamically Altering Agent Behaviors Using Natural Language Instructions." *Proc. Autonomous Agents and Multi-agent Systems*, June, 2000, pp. 293-300.
- J. Gratch, J. Rickel, E. Andre, N. Badler, J. Cassell, and E. Petajan. "Creating interactive virtual humans: Some assembly required." *IEEE Intelligent Systems*, 2002.
- J. Cassell, C. Pelachaud, N. Badler, M. Steedman, B. Achorn, W. Becket, B. Douville, S. Prevost, and M. Stone. "Animated conversation: rule-based generation of facial expression, gesture and spoken intonation for multiple conversational agents," *ACM Computer Graphics*, pp. 413-420, July 1994. Reprinted in M. Huhns, M. Singh, and P. Munindar (Eds.), *Readings in Agents*, Morgan Kaufman, San Francisco, 1997; and in M. Maybury and W. Wahlster (Eds.), *Readings in Intelligent User Interfaces*, Morgan Kaufman, San Francisco, 1998.

Selected Synergistic Professional Activities:

- Elected ACM National SIGGRAPH Vice-Chair 1979-81; re-elected 1981-83.
- Senior Editor, Computer Vision, Graphics and Image Processing Journal, 1982-90.
- Co-Editor-in-Chief, Graphical Models, 1989-.
- General Co-Chair of Symposium on Computer Animation, Grenoble, France, August 2004.
- General Co-Chair of Computer Animation and Social Agents, New Brunswick, NJ, May 2003.
- General Co-Chair of Computer Animation, Geneva, June 2002.
- General Co-Chair of Computer Animation, Seoul, Korea, 2001.
- Distinguished Lecturer at U. of Houston (1998), Rice U. (1998), Oregon Research Institute (1997), Columbia U. (1993), Ohio State U. (1991), U. of Toronto (1991), MIT (1985).
- Keynote Speaker: Autonomous Agents, May 2001, Montreal, Canada.
- Keynote Speaker: "Learning to Behave Workshop", October 2000, U. of Twente, Enschede, Netherlands.
- Keynote Speaker: ChinaGraph 2000, September 25, 2000, Hangzhou, China.
- Keynote Speaker: Digital Human Models, June '00, Dearborn, MI.
- Keynote Speaker: Virtual Humans '98, Los Angeles, CA.
- Keynote Speaker: Pacific Graphics '97, Seoul, Korea.
- Keynote Speaker: Current Issues in the Use and Development of Anthropometric Data, June 1997, Bethesda, MD.
- Keynote Speaker: SIBGRAPI '96, Caxambu, Brazil.
- Keynote Speaker: '95 Symposium on "Human Interaction with Complex Systems," Greensboro, NC.

Collaborators and Co-Editors (only non-University of Pennsylvania affiliation):

Elizabeth Andre (U. Augsburg, Germany), Koji Ashida (nVidia), Ramaa Bindiganavale (Susquehanna Partners), Ingrid Carlbom (Lucent), Justine Cassell (MIT; Northwestern U), Diane Chi (Susquehanna Partners), Monica Costa (? , Brazil), Charles Erignac (Boeing), Ambarish Goswami (Honda America Research), Jonathan Gratch (ICT, USC), Hyeong-Seok Ko (Seoul National U), Ying Liu (Sony Entertainment America), Nadia Magnenat-Thalmann (U. Geneva), Dimitris Metaxas (Rutgers), Dava Newman (MIT), Richard Parent (OSU), Eric Petajan (Face2Face, Inc.), Jeff Rickel (ICT, USC), Pascale Rondot (GE Research), William Schuler (U Minnesota), Daniel Thalmann (EPFL, Switzerland), Deepak Tolani (Pacific Data Images), Jeff Wampler (USAF), Liwei Zhao (Synygy.com)

Graduate Advisor:

John Mylopoulos

PhD Thesis Advisor (Year):

Aaron Bloomfield 03, Ying Liu 03, Koji Ashida 03, Sooha Lee 02, Suejung Huh 02, Liwei Zhao 01, Rebecca Mercuri 01, Charles Erignac 01, Jianping Shi 00, John Granieri 00, Rama Bindiganavale 00, Diane Chi 99, Sonu Chopra 99, Deepak Tolani 98, Pei-Hwa Ho 98, Bond-Jay Ting 98, Barry Reich 97, Xinmin Zhao 96, Min-Zhi Shao 96, Francisco Azuola 96, Paul Diefenbach 96, Libby Levison 96, Welton Becket 96, Hyeongseok Ko 94, Eunyoung Koh 93, Jianmin Zhao 93, Philip Lee 93, Wallace Ching 92, Moon Jung 92, Cary Phillips 91, Catherine Pelachaud 91, Tarek Alameldin 91, Diana Dadamo 90, Jugal Kalita 90, Isaac Rudomin 90, Susanna Wei 90, Pearl Pu 89, Tamar Granor 86, Paul Fishwick 86, Stephen Platt 85, Gerald Radack 84, James Korein 84, Chaim Broit 81, Dan Olsen 81, Sakunthala Gnanamgari 81, Joseph O'Rourke 80, Larry Grim 80, Bulent Ozguc 78.

Post-Graduate Scholar Sponsor:

Catherine Pelachaud, Marie-Luce Viaud, Tsukasa Noma, Torbjorn Hallgren, Ambarish Goswami, Begoña Martinez, Monica Costa, Ugur Gudukbay, Masatosi Hada, Aaron Bloomfield