Vita of Jan M. Allbeck

Systems Programmer, Center for Human Modeling and Simulation
Computer and Information Science Department
University of Pennsylvania, Philadelphia, PA 19104-6389
215-573-9463; 215-573-7453 (fax); allbeck@seas.upenn.edu

Degrees:
BA 1995 Mathematics, Bloomsburg University, Bloomsburg, PA
BS 1995 Computer Science, Bloomsburg University, Bloomsburg, PA
MSE 1997 Computer and Information Science, University of Pennsylvania, Philadelphia, PA
Ph.D. Candidate Computer and Information Science, University of Pennsylvania (ABD)

Employment:
All-Byte Consulting, Computer Consultant, 1992-1995
University of Pennsylvania, Teaching Assistant, 1996-1997
University of Pennsylvania, Systems Programmer, 2001-present

Current Responsibilities:
- Management of HMS research projects including proposals, reports, software design and deliverables.
- Work with HMS Director, Dr. Norman Badler as well as independently to supervise both individual and group projects consisting of both graduate and undergraduate students.
- Participate in outreach activities through demonstrations of our immersive VR studio, LiveActor and HMS tours to high school groups, alumni, visiting researchers and teachers, and industry liaisons, as well as, through publications and publicity for HMS, the Digital Media Design program, and the UPenn student SIGGRAPH chapter.
- Negotiate with hardware and software vendors and oversee or perform required installations.
- Represent HMS at sponsor meetings and research conferences.

Brief Research Summary:
Research for the Center for Human Modeling and Simulation at the University of Pennsylvania focused on embodied, autonomous agents with individuality, developing behavior-based animation of human movement especially for gesture, gait, and facial expression, constructing a parameterized action representation for real-time simulation and animation, and understanding the relationship between human movement, natural language, and communication.

Selected Professional Activities:
- Programmer/content designer, ONR Virtual Environments for Training. UPenn, 1996-2001.
- Programmer/system designer/project manager, NSF The Actionary: A Dictionary that Portrays Natural Language Expressions as Context-Sensitive Simulations of Human Actions. UPenn, 1999-2001.
- Program/system designer, Pedestrians: Creating Agent Behaviors through Statistical Analysis of Observation Data. UPenn, 2000.
- Project manager, ACUMEN: Amplifying Control and Understanding of Multiple Entities. UPenn, 2001-2002.
- Project manager/programmer, NASA Crew Task Simulation for Maintenance, Training, and Safety. UPenn, 2000-2003.
- Project manager/programmer, LMCO Animation test-bed. UPenn, 2002-2004.
- Project manager, ONR VIRTE (Virtual Technologies and Environments). UPenn, 2004.
- Project manager, NASA RIVET (Rapid Interactive Visualization for Extensible Training). UPenn, 2004.

- Reviewer for Computer Graphics International, 2001; SIGGRAPH, 2001; Graphical Models Journal, 2001; Autonomous Agents, 2001; Computer Animation, 2001; Web3D, 2002; Autonomous Agents and Multi-agent Systems, 2002; Computer-Human Interaction, 2003; SIGGRAPH, 2003; Autonomous Agents and Multi-agent Systems, 2003; Intelligent Virtual Agents, 2003; Computer Graphics International, 2004; Autonomous Agents and Multiagent Systems, 2004; Eurographics, 2004; Technologies for Interactive Digital Storytelling and Entertainment, 2004; IEEE Transactions on Visualization and Computer Graphics, 2004

- Program committee, Virtual Storytelling 2003, CHI Workshop on Subtle Expressivity for Characters and Robots 2003, AAMAS Workshop on Embodied Conversational Characters as Individuals 2003.

Selected Publications:

- J. Allbeck and N, Badler. "Embodied Autonomous Agents," In Handbook of Virtual Environments, K. Stanney, Ed., Lawrence Erlbaum Associates, 2002, pp. 313-332.

- N. I. Badler and J. M. Allbeck. "Towards Behavioral Consistency in Animated Agents," Proceedings of Deformable Avatars, Kluwer Academic Publishers, N. Magnenat-Thalmann and D. Thalmann, eds., 2001, pp. 191-205.

- J. Allbeck and N. Badler. "Creating Embodied Agents with Cultural Context," In R. Trappl and S. Payr (Eds.), Agent culture: Designing virtual characters for a multi-cultural world. New York: Lawrence Erlbaum Associates, 2004, pp. 107-126 .

- N. Badler, J. Allbeck, L. Zhao, and M. Byun. "Representing and Parameterizing Agent Behaviors", Proceedings of Computer Animation, IEEE Computer Society, June 2002, Geneva, Switzerland, pp. 133-143.

- J. Allbeck and N. Badler. "Toward Representing Agent Behaviors Modified by Personality and Emotion", "Workshop Embodied conversational agents - let's specify and evaluate them!" at Autonomous Agents and Multiagent Systems 2002, Bologna, Italy.

Other Publications:

- J. Allbeck and N. Badler. "Representing and Parameterizing Agent Behaviors". In "Life-like Characters: Tools, Affective Functions and Applications." Helmut Prendinger and Mitsuru Ishizuka, Eds. Springer, Germany, 2003, pp. 19-38 .

- R. Bindiganavale. W. Schuler, J. Allbeck, N. Badler, A. Joshi, and M. Palmer. "Dynamically Altering Agent Behaviors Using Natural Language Instructions". Proceedings of Autonomous Agents 2000, pp. 293-300.

- K. Ashida, S.J. Lee, J. Allbeck, H. Sun, N. Badler, and D. Metaxas. "Pedestrians: Creating Agent Behaviors through Statistical Analysis of Observation Data." Proceedings of Computer Animation 2001, pp. 84-92.

- 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.

- J. Allbeck, K. Kipper, C. Adams, W. Schuler, E. Zoubanova, N. Badler, M. Palmer, and A. Joshi. ACUMEN: Amplifying Control and Understanding of Multiple ENtities, Proceedings of Autonomous Agents and Multi-Agent Systems, ACM Press, July 2002, Bologna, Italy, pp. 191-198