KENNETH M. MOORMAN

`http://www.cs.transy.edu/kmoorman/`
`kmoorman@transy.edu`

Work Address	**Home Address**
Transylvania University	3425 Holwyn Rd.
300 N. Broadway	Lexington, KY 40503
Lexington, KY 40508	(859) 219-1638
(859) 233-8245	

Objective

To enhance my teaching of computer science within a liberal arts framework in order to best prepare students for graduate school or the workplace, while also continuing a research program exploring issues of computational modeling, human and machine natural language comprehension, creativity, emotional intelligence, learning, and their interactions.

Degrees

Ph.D. in Computer Science (Artificial Intelligence). Cognitive Science Certificate. Psychology Minor. Thesis title: *A Functional Theory of Creative Reading: Process, Knowledge, and Evaluation.* Georgia Institute of Technology, Atlanta, GA (1997).

Masters of Science in Computer Science. Georgia Institute of Technology, Atlanta, GA (1996).

B.A. in Computer Science and Mathematics, Minor in History. Transylvania University, Lexington, KY (1991). Graduated *summa cum laude*, with honors in computer science and mathematics.

Selected Honors

Third place, Lulu Awards at the Lulu Technology Circus (2002).
Bingham Startup Grant, Transylvania University (1997).
Finalist, Marr Student Paper Award, Cognitive Science Conference (1996).
Georgia Tech Cognitive Science Student Paper Award (1996).
Graduate Student Paper Award, Creative Concepts Conference, Texas A&M University (1995).
SAIC Paper Award (1995).
Fannie and John Hertz Foundation Fellowship (1991-1996).

Grants

Faculty and Student Enrichment Kenan Grants (Summer, 2004). Worked with Stuart Branham, Darren Carrico, and Matthew Lala to research, build, and utilize a 16-node cluster computer. Dr. Mike LeVan was co-director of the students.
Faculty and Student Enrichment Kenan Grant (Summer, 2003). Worked with Charles Erwin on computer chess program.
Faculty and Student Enrichment Kenan Grant (Summer, 2002). Worked with Becca Abney to develop an intelligent dictionary system.
David and Betty Jones Faculty Development Grant (Summer, 2002). Worked with Bentley Walker on the DSAM auditory modeling project.
David and Betty Jones Faculty Development Grant (Summer, 2001). Worked with Bentley Walker on the DSAM auditory modeling project.
David and Betty Jones Faculty Development Grant (1998). Grant allowed me to explore issues in emotional modeling and social lying.

Experience

Transylvania University, Lexington, KY (Fall, 2003 to present). Associate Professor of Computer Science.

Transylvania University, Lexington, KY (Fall, 2000 to present). Computer Science Program Director.

Transylvania University, Lexington, KY (Fall, 1998 to present). Coach, Transylvania Academic Competition Club.

Transylvania University, Lexington, KY (Fall, 1997 to present). Director of the Computer Science Laboratory.

Transylvania University, Lexington, KY (Fall, 1997 to Fall, 2003). Assistant Professor of Computer Science.

Transylvania University, Lexington, KY (Summers, 1997 through present). Co-assistant director of Academic Summer Camps: *Computer Camp for Middle School Students*, *Computer Camp for High School Students*, and *Academic Camp for Appalachian Students*

Transylvania University, Lexington, KY (Summers, 2001 through present). Co-assistant director of *Advanced Computer Camp*.

Transylvania University, Lexington, KY (Summers, 1997 and 1998). Co-assistant director of *Science and Technology Camp*.

Georgia Institute of Technology, Atlanta, GA (Spring, 1997; Fall, 1996; Summer, 1996; Summer, 1995). Instructor for CS2360, Knowledge Representation and Processing.

Selected Publications	Ashwin Ram and Kenneth Moorman, eds., *Understanding Language Understanding: Computational Models of Reading*, (1999). MIT Press, Cambridge MA.

Ashwin Ram and Kenneth Moorman, "Towards a theory of reading and understanding." in *Understanding Language Understanding: Computational Models of Reading*, (1999). MIT Press, Cambridge MA.

Kenneth Moorman and Ashwin Ram, "Creativity in reading: Understanding novel concepts." in *Understanding Language Understanding: Computational Models of Reading*, (1999). MIT Press, Cambridge MA.

Ashwin Ram, Ronald C. Arkin, Kenneth Moorman, and Russell J. Clark, "Case-based reactive navigation: A method for on-line selection and adaptation of reactive robotic control parameters." *IEEE Systems, Man, and Cybernetics*, 27B(3), (1997). *Appears in longer form as Tech Report GIT-CC-92/57, Georgia Institute of Technology, 1992.*

Kenneth Moorman and Ashwin Ram, "The role of ontology in the creative understanding process." *Proceedings of the Eighteenth Annual Cognitive Science Conference*, 1996.

Kenneth Moorman and Ashwin Ram, "Integrating reading and creativity: A functional approach." In *Proceedings of the Sixteenth Annual Cognitive Science Conference*, 1994.

Kenneth Moorman and Ashwin Ram, "A model of creative understanding." In *Proceedings of the Twelfth Annual AAAI Conference*, 1994.

Kenneth Moorman and Ashwin Ram, "A new perspective on story understanding." *31st Annual Association for Computing Machinery Southeast Conference*, 1993.

Kenneth Moorman and Ashwin Ram, "A case-based approach to reactive control for autonomous robots." *AAAI Fall Symposium on "AI for Real-World Autonomous Mobile Robots,"* 1992.

Kenneth Moorman "An approach to the problem of DNA mapping" In *Proceedings of the 29th Annual Southeast Regional ACM Conference*, 1991.

Kenneth Moorman, Paul Poulosky, and Will Gillett, "DNA mapping algorithms: Topological mapping" Washington University, Technical Report WUCS-91-23, 1991.

Selected Student Presentations	''Analysis and Testing of Outer and Middle Ear Models in DSAM.'' Megan Kruspe, Bentley Walker, Peggy Shadduck Palombi, and Kenneth Moorman. Paper presented by Ms. Kruspe at the 2001 Kentucky Academy of Science meeting.

''Biologically-inspired Models of the Outer and Middle Ear.'' Bentley Walker, Megan Kruspe, Peggy S. Palombi, and Kenneth Moorman. Poster presented by Mr. Walker at the 2001 Kentucky Academy of Science meeting.

''Modifications of a Computer Model of the Auditory Pathway.'' Matt Cross, Megan Kruspe, Peggy Shadduck Palombi, and Kenneth Moorman. Poster presented by Mr. Cross at the 2000 Kentucky Academy of Science meeting. Also presented by Mr. Cross at the 2001 AAAS meeting.

''Analysis of Basilar Membrane Models in the LUTEar Library.'' Megan Kruspe, Matt Cross, Kenneth Moorman, and Peggy Shadduck Palombi. Poster presented by Ms. Kruspe at the 2000 Kentucky Academy of Science meeting. Also presented by Ms. Kruspe at the 2001 AAAS meeting.

''Analysis of a Functional Digital Model of the Mammalian Basilar Membrane.'' Shelly Ferrell, Matthew E. Koger, David Rice, Kenneth Moorman, and Peggy Shadduck Palombi. Poster presented by Mr. Ferrell at the 1999 Kentucky Academy of Science meeting.

''Explanation of the Validity of the Pre-emphasis Filter in an Auditory System Model.'' Matthew E. Koger, Shelly Ferrell, David Rice, Kenneth Moorman, and Peggy Shadduck Palombi. Poster presented by Mr. Koger at the 1999 Kentucky Academy of Science meeting.

''Computer Modeling of the Human Auditory System.'' David Rice, Peggy Shadduck Palombi, and Kenneth Moorman. Poster presented by Mr. Rice at the 1998 Kentucky Academy of Science meeting.

Reviews

A Computational Story Model Based on Situational Grammar Richard Hall. University of Ballarat in Australia. Served as outside evaluator of the PhD dissertation (2000).

Acted as a paper reviewer of the *Cognitive Science Conference* (1998).

''SIT: A Method for Enhancing Creative Problem Solving in Engineering'' Maimon and Horowitz. Submission to IEEE's *Society, Man, and Cybernetics* (1997).

''How Do Conceptions of Learning Change'' Paivi Tynjala. Submission to *The Journal of the Learning Sciences* (1997).

Activities

Member of panel discusion at Lexington Open Source Technology Conference, 2004; topic was the use of open source in education. Search committee, Philosophy (2002–2003).
Parliamentarian (2002–present).
President, KCQRL, Academic Competition League (2002–2004).
Special Award Judge, Intel International Science and Engineering Fair (May 2002).
Who's Who Among America's Teachers (2002, 2004).
Judge, Kentucky American Water Company Science Fair (Winter 2002; Winter 2004).
Head Judge, ACM Regional Programming Competition, University of Kentucky (November 2001; November 2002; November 2003).
Vice-president, KCQRL, Academic Competition League (2000–2001).
Committee on Program and Curriculum (2000–2002, Chair 2001–2002).
Judicial Council (1998–2000).
Judge, Lila H. Boyarsky Student Research Award (1999).
Holleian Society President (1998–1999).
Member of the editorial staff of *Alterity* (student-run journal) (1998–2000).
Co-chair (with Ashwin Ram)—FLAIRS-96 Special Track on "Real-World Natural Language Understanding" (May 20-22, 1996).

Courses Taught	Introduction to Computers	Assembly Language	Computer Architecture
	Computer Organization	Operating Systems	Artificial Intelligence
	Senior Seminar	Object Oriented Programming	Theory of Programming Languages
	Discrete Computer Math	University 1111	Foundations of the Liberal Arts I
	Robotics	Knowledge Representation and Processing	
	Web Design	Foundations of the Liberal Arts II	
	The Joy of Penguins: Linux Fundamentals (team taught with M. LeVan)		
	Artificial Intelligence and Science Fiction (team taught with I. Fields)		

Research Interests

Computer modeling of the human auditory system
Social lying
Creativity in the reading process
Small-scale robotics

Memberships

Kentucky Academy of Science
International Reading Association
American Association for Artificial Intelligence
Cognitive Science Society
Holleian Society
Association for Computing Machinery
ACM SIGART (Artificial Intelligence Special Interest Group)
ACM SIGCSE (CS Education Special Interest Group)
Omicron Delta Kappa