

Andruid Kerne

education

Ph.D. Computer Science, NYU, 2001

M.A. Music (composition), Wesleyan, 1993

B.A. Applied Mathematics (electronic media), Harvard, 1982

academic and professional appointments

Assistant Professor, **Texas A&M University** Department of Computer Science, 2002-present.

Visiting Professor, **Tufts University** Dept of Electrical Engineering and Computer Science, 2000-2001.

Director, Creating Media. Develop web commerce and branding strategies, systems, and architectures. Clients include *AT&T*, *Procter & Gamble*, *Mitsui*, *Discovery Channel*. Function as Director of Technology and Creative Director. Manage a team of six. 1994-2002.

Senior Software Engineer, Toshiba Medical Imaging. Develop real time embedded systems and fft dsp architectures and implementation for MRI. 1993.

Senior Software Engineer, Litton IA for Boeing. Lead human computer interface architect, developer for REDARS database of 7x7 commercial airplane schematic images for all assembly and maintenance. 1989-91.

Senior Software Engineer, NASA-JPL. Develop object-oriented real time embedded system to perform video filtering in computer vision subsystem for the Mars Pathfinder. 1988-89.

Senior Software Engineer, Wind River Systems. Develop VxWorks real time operating system, 1987.

constructive teaching → situated learning

Texas A&M Comp 610 *Hypertext*. Created new version of graduate course oriented toward readings of the ACM Hypertext Conference. Units include Origins of Hypertext, Notecards, Aquanet, Dexter Model, Spatial Hypertext and Informal Representations, Annotation, Nature of the Link, Back Button, Adaptive Hypermedia, Discourse Structure, Literary Perspectives, and Blogs. Students took turns making presentations on each unit, using hypertext research software: VKB, Walden's Paths, and combinFormation. They developed solo and ensemble research projects.

Texas A&M Comp 489 *Structures of Interactive Information*. Developed new integrated undergraduate course. Methodologies include programming, design, authoring, and cultural theory. Structures examined are semantic, technical, cultural, and creative. Practices are conceptual, visual, and algorithmic. Focus on personal collections, and self-expression through design and programming.

Texas A&M Comp 689 *Recombinant Media Ecosystems*. Explored CollageMachine's conceptual space and research agenda with 11 interdisciplinary graduate students from computer science and visualization. Approaches are technical, aesthetic, cognitive, and conceptual. Fall 2002.

Tufts Comp 150, *Public Web Installation*. Developed a public ambient version of CollageMachine and exhibited it in the Boston CyberArts Festival, with 12 talented undergraduate and graduate students. Fall 2000, Spring 2001.

Tufts Comp 171, *Human Computer Interaction*, a graduate and upper division undergrad intro to the field. Develop curriculum which considers state of the art literature in the field. Challenges students to blend disciplines. Integrate experimental, technological, cultural, and cognitive CHI bases.

Tufts Comp 106. *Object-oriented Programming with Interactive Graphics*. Upper division course for 50 3rd - 4th year undergrad., and grad students. Develop curriculum which explores graphical interface agents. Students . do creative projects, build games & simulations, while learning object-oriented design, full range of Java semantics.

publications

Kerne, A. Khandelwal, M, Sundaram, V., Wang, J., Mistrot, J.M. Expression-Directed Information Space Generation and Authoring, *Proc ACM Multimedia*, 454-455, Nov 2003.

Kerne, A., Sundaram, V. A Recombinant Information Space, *Proc Computational Semiotics in Games and New Media (CoSIGN)*, 48-57, Sept 2003.

Kerne, A. Khandelwal, M, Sundaram, V. Publishing Evolving Metadocuments on the Web. *Proc ACM Hypertext*, 104-105, Aug 2003..

Karadkar, U.P., Kerne, A., Furuta, R., Francisco-Revilla, L., Shipman, F., Wang, J., Connecting Interface Metaphors to Support Creation of Hypermedia Collections, *Proc European Conf Digital Libraries*, Aug 2003.

Kerne, A. Concept-Context-Design: A Creative Model for the Development of Interactivity, *Proc ACM Creativity and Cognition*, Vol 4, 192-122, Oct 2002.

Kerne, A. Interface Ecosystem, the Fundamental Unit of Information Age Ecology, *Proc SIGGRAPH02: Art and Animation*. 142-145, Aug 2002.

Kerne, A., Jeremijenko, N., Mateas, M., Schiphorst, T., Wright, W. Extending Interface Practice: An Ecosystems Approach, *Proc SIGGRAPH02: Abstracts & Applications*, 90-92, Aug 2002.

Kerne, A. The Conceptual Space of Collage, from CollageMachine to Interface Ecology and Back, *Cultronix #5*, www.eserver.org/cultronix, Dec 2001.

Kerne, A. CollageMachine: Interest-Driven Browsing Through Streaming Collage, *Proc Cast01: Living in Mixed Realities* (Bonn), 241-244. Sept 2001.

Kerne, A. Open Processes Create Open Products: Interface Ecology As A Metadisciplinary Base For CollageMachine, *Proc SIGGRAPH01: Abstracts & Applications*, 239, Aug 2001.

Kerne, A. CollageMachine: An Interactive Agent of Web Recombination, *MIT Press Leonardo Journal of Arts and Sciences* (Juried Digital Salon Issue), Vol 33, No. 5, 347-350, Nov 2000.

Kerne, A. Cultural Representation in Interface Ecosystems, *ACM interactions*, 37-43, Jan-Feb 1998.

Kerne, A. Interface Ecology as a Pedagogical Framework for HCI, *Proc HCI*, 1997.

Kerne, A. CollageMachine: Temporality and Indeterminacy in Media Browsing via Interface Ecology, *Proc CHI 97 Extended.*, 297-298, April 1997

Kerne, A. Object Oriented Multimedia Programming in Java, *Proc ICS Intranet 1996*.

Kerne, A. Lang, M., Kofi, F. Cultural Ecology from Ghana to the World Wide Web, *MIT Press Leonardo Electronic Almanac*, 1996.

Kerne, A. Lang, M. Djembe Drumming, *Program for the World Music Institute African Troubadours Festival*, 1995.

exhibitions & residencies

CollageMachine: SIGGRAPH 2001 Gallery/N-Space, Los Angeles, Aug 2001.

Banff New Media Institute, Aug 2001.

Guggenheim Museum (Works and Process), New York, June 2001.

Electronic Literature Organization Awards, New York, May 2001.

Digital Arts and Culture Conference, Providence, RI, April 2001.

New York Digital Salon (NYC, Spain, London, Beijing): Oct 2000 - May 001.

Kerne, A., Kofi, F., Lang, M., *Coded Messages: CHAINS*

New York Digital Salon, Oct - Dec 1997.

Springtij Festival, Amsterdam, 1995.

PANAFEST – Pan African Theater Festival, Cape Coast, Accra, and Anyako, Ghana, 1994.

awards

Kerne, A. + comp 126 students, Spaulding-Potter Fund for Innovative Education grant: JumboScope, 2001.

Kerne, A., full tuition and stipend NSF funding for .Ph.D. (grant #GER-9454173), NYU, 1995-2000.

Kerne, A., "CollageMachine," Milia 2000 New Media Talent Competition, Cannes, France, Feb 2000.

Kerne, A. "Interface Ecology Web Open Stacks," Informix For Innovation DBMS grant, 1998.

Kerne, A., Kofi, F., Lang, M., "Coded Messages: CHAINS", Award of Distinction, Prix Ars Electronica, Linz, Austria, 1996.

Kerne, A., Lang, M., Rockefeller Foundation / Dance Theater Workshop Suitcase Fund grant for Coded Messages: CHAINS, 1994.

Kerne, A., full tuition and stipend funding for M.A. in music, Wesleyan University, 1991-1993.

collaborators and other affiliations

Collaborators: Texas A&M: John Leggett, Richard Furuta, Frank Shipman, Du Li, John Keyser, Don House, Fred Parke, Ergun Akleman, Steve Smith; Ricardo Gutierrez-Osuna, Simon Fraser: Thecla Schiphorst, S. Kozel

Advisors: Ken Perlin & Richard Schechner (NYU), Alvin Lucier & Anthony Braxton (Wesleyan)

Advisees: 3 current (Jin Wang, Vikram Sundaram, Madhur Khandelwal)