

**BIOGRAPHICAL SKETCH**

Provide the following information for the Senior/key personnel and other significant contributors.  
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: **Smith, Kimberly Ann**

eRA COMMONS USER NAME (credential, e.g., agency login): **KIMSMITH12**

POSITION TITLE: **Assistant Professor**

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
The University of Texas Health Science Center at Houston Health Educators Fellowship Program	n/a	6/2017	Education fellowship
The University of Texas Health Science Center at Houston School of Health Information Sciences [now School of Biomedical Informatics]	PhD	5/2010	Health informatics
The University of Texas Health Science Center at Houston School of Health Information Sciences [now School of Biomedical Informatics]	MS	5/2005	Health informatics
St. Luke's Episcopal Hospital, Texas Medical Center, Houston, Texas	MT	6/1983	Medical technology
Eastern Kentucky University, Richmond, Kentucky	BS	5/1981	Microbiology

**A. Personal Statement**

I have extensive experience in teaching biomedical informatics – both concepts and technical applications – to adults who have little to no computer expertise. Likewise, I am experienced in teaching medical concepts to adults who have no healthcare background or education. I began teaching and training as a medical technologist in 1985 in a laboratory clinical chemistry department, and have had educational responsibilities in every position since then. I taught from 2010-2014 at The University of Texas at Austin Health Information Technology program, an ONC-funded program for which Dr. Susan Fenton was the primary investigator. Since 2014, I have been an assistant professor at The University of Texas Health Science Center at Houston School of Biomedical Informatics, where I am allocated full-time to teaching introductory courses to entering students. I have extensive experience with developing computer lab exercises and workbooks, including electronic health records, SQL, HL7, and Python, for in-person and for online students. Finally, I have successfully completed an 18-month fellowship for educators in the health professions, including a capstone project on predicting student success. In short, there are few – if any – better qualified people than myself to teach entry-level concepts in a short period of time to high school and community college teachers.

1. Predicting student success in an introductory graduate biomedical informatics course. **Smith, K.A.** and Ross, A. 2017. Proceedings of the Advances in Teaching & Learning Day Regional Conference, Houston, Texas.

**B. Positions and Honors**Positions and employment

- 2014 – present **Assistant Professor**, School of Biomedical Informatics, The University of Texas Health Science Center at Houston.
- 2010 - 2014 **Lecturer**, Health Information Technology Program, The University of Texas College of Natural Sciences, Austin, Texas.

- 2006, 2008-2009 **Graduate Teaching Assistant**, The University of Texas Health Science Center at Houston School of Health Information Sciences.
- 2003-2005 **Technical Writer**, G. E. Medical Systems, Triple G laboratory information systems division, Markham, Ontario
- 2000-2003 **Business Process Analyst / Project Manager**, The University of Texas M. D. Anderson Cancer Center, Management Information Systems, Anatomic Pathology computer system replacement project (\$1.8 million)
- 1997-2000 **Manager**, Technical Publications, ADAC HealthCare Information Systems, Malcolm Baldrige National Quality Award Winning Company, Houston, Texas
- 1997 **Project Manager**, ADAC HealthCare Information Systems, Malcolm Baldrige National Quality Award Winning Company, Houston, Texas
- 1995-1997 **Client Services Analyst**, Community Health Computing, Houston, Texas
- 1990-1995 **Implementation Analyst**, Community Health Computing, Houston, Texas
- 1988-1990 **Laboratory Information System (LIS) Supervisor; Database Analyst**, St. Luke's Episcopal Hospital, Department of Pathology, Houston, Texas. Implemented first LIS with full order entry and results interface.
- 1985-1988 **Medical Technologist**, St. Luke's Episcopal Hospital, Department of Pathology, Clinical Chemistry, Houston, Texas
- 1983-1985 **Medical Technologist**, The University of Texas M. D. Anderson Cancer Center, Division of Veterinary Medicine and Surgery, Houston, Texas
- 1981-1983 **Veterinary Assistant**, Fondren South Animal Clinic, Houston, Texas
- 1975-1980 **Laboratory Assistant (volunteer)**, University of Kentucky Animal Disease Diagnostic Laboratory (now Breathitt Veterinary Center); necropsy, bacteriology, and brucellosis departments; Hopkinsville, Kentucky
- 1975-1980 **Veterinary Assistant (volunteer)**, Skyline Animal Clinic, Hopkinsville, Kentucky

### Other Experience and Professional Memberships

American Society for Clinical Pathology (ASCP), 1983 – present  
Healthcare Information and Management Systems Society (HIMSS)

### Honors

- 2015 **John P. McGovern Outstanding Teaching Award**, University of Texas Health Science Center at Houston School of Biomedical Informatics
- 2013 **Certificate of appreciation** from Delta Sigma Pi, The University of Texas at Austin McCombs School of Business.
- 2011 **Honoree**, Props for Profs faculty appreciation dinner hosted by the Natural Sciences Council, UT-Austin
- 2010 **Honoree**, Props for Profs faculty appreciation dinner hosted by the Natural Sciences Council, UT-Austin
- 2006 **Member of winning team**. Interdisciplinary University of Texas Health Science Center/ University of Houston 2006 Health Care Team Competition.
- 2005 **Third place prize**, student poster competition, awarded by Healthcare Information and Management Systems Society (HIMSS), School of Health Information Sciences Fall Symposium.
- 2005 **Outstanding Community Service award**, University of Texas Health Science Center
- 2004 **Second place prize**, for student poster competition, The University of Texas Health Science Center at Houston Research Day Graduate and Postgraduate Research Forum.
- 2004 **Premier Choice award**, GE Medical Systems, for Master File training manual
- 2003 **Premiere Choice award**, GE Medical Systems, for Transfusion Medicine documentation
- 2003 **Premiere Choice award**, GE Medical Systems, for Transfusion Medicine 510(K) work
- 2002 **Letter of Commendation** from Department of Cytopathology, MD Anderson Cancer Center, for

- implementation of anatomic pathology system
- 1996 **Power of One award**, ADAC HealthCare Information Systems, Malcolm Baldrige National Quality Award Winning Company
- 1993 **Letter of Commendation**, from Mercy and Unity Hospitals of Minnesota, for implementation of anatomic pathology software
- 1991 **Letter of Commendation**, from The Mercy Hospital of Pittsburgh, for implementation of anatomic pathology software
- 1988 **Teacher of the Year**, St. Luke's Episcopal Hospital Medical Technology Class, 1987-1988
- 1983 **Texas State Championship**, Medical Technology Student Bowl competition (team captain)

### C. Contributions to Science

My publications have been in a variety of domains, including education, nursing, clinical decision support, and veterinary medicine, and have examined student success, usability and clinical decision support guidelines. My dissertation work focused on aspects of usability – proximity of data, explicitness of material, and representation of knowledge – of basic science information on student clinical problem solving. During the course of this research, I found that while learning approaches require students to build on what they already know and to figure out how new knowledge fits in with prior knowledge, certain complex situations must be explicitly explained to the student. No amount of usability design can compensate for expert explanations of complex material.

1. Dissertation: **Smith, K. A. 2010.** The effect of proximity, explicitness, and representation of basic science information on student clinical problem solving. The University of Texas Health Science Center at Houston School of Health Information Sciences.
2. Predicting student success in an introductory graduate biomedical informatics course. **Smith, K.A.** and Ross, A. 2017. Proceedings of the Advances in Teaching & Learning Day Regional Conference, Houston, Texas.
3. McLane, S., Turley, J.P., Wood, Esquivel, A., G., Engebretson, J., **Smith, K.**, Zhang, J. Concept analysis of cognitive artifacts. *Advances in Nursing Science*. 2010 Oct/Dec;33(4):352-362. PubMed ID: 21068556
4. **Smith-Akin, K. A.**, McLane, S., Craig, T. M., & Johnson, T. R. (2006). Application of cognitive engineering principles to the redesign of a dichotomous identification key for parasitology. *AMIA Annual Symposium proceedings / AMIA Symposium*. AMIA Symposium, 739-43. PubMed ID: 17238439
5. **Smith-Akin, K.A.**, Bearden, C.F., Pittenger, S.T., & Bernstam, E.V. Toward a veterinary informatics research agenda: an analysis of the PubMed-indexed literature. *International Journal of Medical Informatics*. 2007 Apr;76(4):306-12. PubMed ID: 16569509.
6. Edmonson, S., **Smith-Akin, K.A.**, & Bernstam, E.V. Context, automated decision support, and clinical practice guidelines: Does the literature apply to the United States practice environment? *International Journal of Medical Informatics*. 2007 Jan;76(1):34-41. PubMed ID: 16524767

### D. Additional Information: Research Support and/or Scholastic Performance

Office of the National Coordinator for Health Information Technology – Department of Health and Human Services, “Health Informatics Curriculum and Training for Transformation,” Award# 90WT0006/01-00, Project dates: 6/29/15-6/28/17, Grant award amount: \$966,436, Role: Co-Investigator, Committed effort: 10%.