CURRICULUM VITAE

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ACADEMIC BACKGROUND

M.B.A. Fogelman College of Business & Economics, The University of Memphis
- Executive MBA Class of 2009

Ph.D. The University of Memphis, Tennessee
- Mathematical Sciences (with Computer Science concentration)
- Ph.D. Thesis: "Designing Memory Systems for 'Conscious' Software Agents."

M.S. University of Alabama at Birmingham, Alabama
- Computer & Information Sciences

B.E. B.M.S. College of Engineering, Bangalore
- Electrical Engineering

PROFESSIONAL EXPERIENCE:

Executive Director, Research IT & Asst. Professor, Office of Research and Department of Pediatrics, Baylor College of Medicine, Houston, Texas. [January 2017 to Present]

Adjunct Faculty, Department of Computer Science, College of Natural Sciences & Mathematics, University of Houston, Houston, Texas, USA. [2012 to Present]

- Courses taught include Computer Architecture, Fundamentals of Operating Systems, Design of Database Systems, Computer Scientists & Society

Asst. Professor & Director of Research Informatics, Department of Pediatrics & Dan L. Duncan Institute for Clinical and Translational Research, Baylor College of Medicine, Houston, Texas. [July 2011 to December 2016]

Member of the Editorial Board for the International Journal of Machine Consciousness (http://www.worldscientific.com/ijmc)

Director of Computing - Biostatistics, *St. Jude Children's Research Hospital, Memphis, Tennessee.* [June 2004 to July 2011]

Director of Computing, Pediatric Brain Tumor Consortium (www.pbtc.org) – NCI funded multi-center consortium for improving treatment of primary brain tumors in children [1999 to 2011]

Adjunct Graduate Faculty, Department of Electrical and Computer Engineering, Herff College of Engineering, University of Memphis, Memphis, Tennessee, USA. [2010 to 2011]

- Course taught: Network Programming.

Post-doctoral Fellow, Institute for Intelligent Systems, University of Memphis, Memphis, Tennessee. [2004 to 2007]

- Involved in research and computational modeling of cognitive processes with the Cognitive Computing Research Group (CCRG – ccrg.cs.memphis.edu) headed by Dr. Stanley P. Franklin.

Adjunct Graduate Faculty, Department of Mathematical Sciences, University of Memphis, Memphis, Tennessee. [2005 – 2007]

- Courses taught include Programming UNIX, Computer Organization and Assembly Language, and System Administration.

Project Leader – Information Technology, *St. Jude Children's Research Hospital,* Memphis, Tennessee. [August 1999 to June 2004]

Senior Network Engineer, *St. Jude Children's Research Hospital***,** Memphis, Tennessee. [February 1998 to July 1999]

Instructor, *Department of Mathematical Sciences, University of Memphis*, Memphis, Tennessee. [Fall 1995 to Spring 1997]

- Taught courses in Computer Organization/Assembly Language, and Data Structures with OOP.

Systems Engineer, *St. Jude Children's Research Hospital*, Memphis, Tennessee. [September 1989 to January 1998]

Research Assistant, *School of Public Health, University of Alabama at Birmingham*, Birmingham, Alabama. [September 1988 to September 1989]

- Involved in programming and statistical analyses for CARDIA - an epidemiological study of coronary heart diseases risk factor development in young adults sponsored by the National Heart, Lung and Blood Institute (NHLBI), USA.

Hardware Engineer*, TVS Electronics*, Bangalore, India. [July 1986 to February 1988]

PUBLICATIONS:

LeMaire SA, Trautner BW, **Ramamurthy U**, Green SY, Zhang Q, Fisher WE, Rosengart TK. ***An Academic Relative Value Unit System for Incentivizing the Academic Productivity of Surgery Faculty Members.*** Ann Surg. 2018 Sep; 268(3):526-533.

Deter RL, Lee W, Yeo L, Erez O, **Ramamurthy U**, Naik M, Romero R. ***Individualized growth assessment: conceptual framework and practical implementation for the evaluation of fetal growth and neonatal growth outcome.*** Am J Obstet Gynecol. 2018 Feb; 218(2S):S656-S678.

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Scollon S, Bergstrom K, Kerstein RA, Wang T, Hilsenbeck SG, ***Ramamurthy U***, Gibbs RA, Eng CM, Chintagumpala MM, Berg SL, McCullough LB, McGuire AL, Plon SE, Parsons DW. ***Obtaining informed consent for clinical tumor and germline exome sequencing of newly diagnosed childhood cancer patients.*** Genome Med. 2014; 6(9):69.

McGann PT, Ferris MG, ***Ramamurthy U***, Santos B, de Oliveira V, Bernardino L, Ware RE. ***A prospective newborn screening and treatment program for sickle cell anemia in Luanda, Angola.*** Am J Hematol. 2013 Dec; 88(12):984-9.

Uma Ramamurthy, Stan Franklin and Pulin Agrawal, ***Self-System in a Model of Cognition***, in the International Journal of Machine Consciousness, Vol. 4, No.2 (2012), p 325-333.

Uma Ramamurthy and Stan Franklin, ***Memory Systems for Cognitive Agents***, in Proceedings of Human Memory for Articifial Agents Symposium at the Artificial Intelligence and Simulation of Behavior – AISB 2011 Convention, University of York, UK, 2011, p 35-40.

Uma Ramamurthy and Stan Franklin, ***Self System in a Model of Cognition***, in Proceedings of Machine Consciousness Symposium at the Artificial Intelligence and Simulation of Behavior – AISB 2011 Convention, University of York, UK, 2011, p 51-54.

Uma Ramamurthy and Stan Franklin, ***Resilient Architectures to facilitate both Functional Consciousness and Phenomenal Consciousness in Machines***, International Journal of Machine Consciousness (IJMC), Vol. 1, Issue 2, p. 243-253, 2009.

Arzu Onar, **Uma Ramamurthy**, Dana Wallace, and James M. Boyett, ***An Operational Perspective of Challenging Statistical Dogma while establishing a Modern, Secure Distributed Data Management and Imaging Transport***

System – The Pediatric Brain Tumor Consortium Phase I Experience, Clinical and Translational Science, Vol. 2, Issue 2, p. 143-149, April 2009.

Stan Franklin, Sidney D'Mello, Bernard J. Baars, and **Uma Ramamurthy**, ***Evolutionary Pressures for Perceptual Stability and Self as Guides to Machine Consciousness,*** International Journal of Machine Consciosuness (IJMC), Vol. 1, No. 1, p. 99-110, 2009.

Stan Franklin, Bernard J. Baars, and **Uma Ramamurthy**, ***A Phenomenally Conscious Robot?***, Newsletter on Philosophy and Computers, APA Newsletters, Fall 2008, Vol. 08, No. 1.
(http://www.apaonline.org/publications/newsletters/v08n1_Computers_03.aspx)

Mulkern RV, Forbes P, Dewey K, Osganian S, Clark M, Wong S, **Ramamurthy U**, Kun LE, Poussaint TY, ***Establishment and Results of a Magnetic Resonance Quality Assurance Program for the Pediatric Brain Tumor Consortium***. Academic Radiology. September 2008.

Uma Ramamurthy, '***Might a LIDA Controlled Robot be Phenomenally Conscious?***', Nokia Workshop on Machine Consciousness 2008, Helsinki, August 2008.

Stan Franklin, **Uma Ramamurthy**, Sidney K. D'Mello, Lee McCauley, Aregahegn Negatu, Rodrigo Silva L., and Vivek Datla, ***LIDA: A Computational Model of Global Workspace Theory and Developmental Learning***, AAAI 2007 Fall Symposium – AI and Consciousness: Theoretical Foundations and Current Approaches, Washington, D.C., November 2007.

Uma Ramamurthy, Xingquan Lu, Zhou Ji, Prasanna Velamuru, Swapna Bavanaka, Kiran Rajaya, Larry E. Kun and James M. Boyett, ***A Paperless, Distributed Data Management System for Multi-Center Clinical Trials***, 28th Meeting of the Society for Clinical Trials, Montreal, Canada, May 2007.

Tina Young Poussaint, MD, Peter Phillips, MD, Sridhar Vajapeyam, PhD, Fred Fahey, DSc, Richard Robertson, MD, Stravoula Osganian, MD, **Uma Ramamurthy, PhD**, Roberrt Mulkern, PhD, Ted Treves, MD, James Boyett, PhD, and Larry Kun, MD, ***The Neuroimaging Center of the Pediatric Brain Tumor Consortium – Collaborative Neuroimaging in Pediatric Brain Tumor Research: A Work in Progress***, American Journal of Neuroradiology, April 2007.

Bernard J. Baars, **Uma Ramamurthy**, and Stan Franklin, ***How deliberate, spontaneous and unwanted memories emerge in a computational model of consciousness***, a Chapter in *Involuntary Memory* (Editor: John H. Mace), Blackwell Publishing, 2007.

Stan Franklin and **Uma Ramamurthy**, ***Motivations, Values and Emotions: 3 sides of the same coin,*** Proceedings of the Sixth International Workshop on Epigenetic Robotics, Paris, France, September 2006, Lund University Cognitive Studies, 128; p. 41-48.

Uma Ramamurthy, Sidney K. D'Mello, and Stan Franklin, ***Realizing Forgetting in a Modified Sparse Distributed Memory System***, The 28th Annual Conference of

the Cognitive Science Society, Vancouver, BC, Canada, July 2006, p. 1992-1997.

Sidney K. D'Mello, **Uma Ramamurthy**, Aregahegn Negatu, and Stan Franklin, ***A Procedural Learning Mechanism for Novel Skill Acquisition***, Workshop on Motor Development, part of AISB'06: Adaptation in Artificial and Biological Systems, University of Bristol, Bristol, England, April 2006. (Eds: Tim Kovacs and James A. R. Marshall, Vol 1, p 184-185, published by Society for the Study of Artificial Intelligence and the Simulation of Behaviour)

Uma Ramamurthy, Bernard J. Baars, Sidney K. D'Mello, and Stan Franklin, ***LIDA: A Working Model of Cognition***, The 7th International Conference on Cognitive Modeling, Trieste, Italy, April 2006. (Eds: Danilo Fum, Fabio Del Missier and Andrea Stocco, p 244-249, published by Edizioni Goliardiche, Trieste)

Sidney K. D'Mello, Stan Franklin, **Uma Ramamurthy**, and Bernard J. Baars, ***A Cognitive Science based Machine Learning Architecture***, AAAI-2006 Spring Symposium, Stanford University, California, March 2006.

Stan Franklin, Bernard J. Baars, **Uma Ramamurthy**, and Matthew Ventura, ***The Role of Consciousness in Memory*** in Brains, Minds and Media, Vol.1, (bmm150) (urn:nbn:de:0009-3-1505).

Sidney K. D'Mello, **Uma Ramamurthy** and Stan Franklin, ***Encoding and Retrieval Efficiency of Episodic Data in a Modified Sparse Distributed Memory System***, 27th Annual Meeting of the Cognitive Science Society (CogSci2005), Stresa, Italy, July 2005, p. 571-576.

Uma Ramamurthy, Sidney K. D'Mello and Stan Franklin, ***Role of Consciousness in Episodic Memory Processes***, Ninth Annual Meeting of the Association for the Scientific Study of Consciousness (ASSC9), California Institute of Technology, Pasadena, June 2005.

Uma Ramamurthy and Stan Franklin, ***Self-Preservation Mechanisms for Cognitive Software Agents***, First World Congress on Lateral-Computing (WCLC2004), Bangalore, India, December 2004.

Uma Ramamurthy, Sidney K. D'Mello, and Stan Franklin, ***Modified Sparse Distributed Memory as Transient Episodic Memory for Cognitive Software Agents***, IEEE International Conference on Systems, Man and Cybernetics (SMC2004), The Hague, Netherlands, October 2004, p. 5858-5863, Omnipress.

Uma Ramamurthy, Sidney K. D'Mello, and Stan Franklin, ***Modeling Memory Systems with Global Workspace Theory***, presented at the Seventh Conference of the Association for the Scientific Study of Consciousness (ASSC7), Memphis, May 30 - June 2, 2003.

Uma Ramamurthy, Aregahegn Negatu, and Stan Franklin, ***Learning Mechanisms for Intelligent Systems***, in *SSGRR-2001 International Conference on Advances in Infrastructure for Electronic Business, Science, and Education on the Internet,* L'Aquila, Italy, August 2001.

Myles Bogner, **Uma Ramamurthy**, and Stan Franklin, ***"Consciousness" and Conceptual Learning In A Socially Situated Agent***, a Chapter in *Human*

Cognition and Social Agent Technology (Editor: Kerstin Dautenhahn) in *Advances in Consciousness Research Series 19*, p. 113-135, John Benjamins Publishing Company, 1999.

Uma Ramamurthy, Myles Bogner, and Stan Franklin, ***Conscious Learning In An Adaptive Software Agent***, in *Proceedings of The Second Asia Pacific Conference on Simulated Evolution and Learning,* Canberra, Australia, November 1998.

Uma Ramamurthy, Stan Franklin, and Aregahegn Negatu, ***Learning Concepts in Software Agents***, in *From Animals to Animat 5 - Proceedings of The Fifth International Conference on Simulation of Adaptive Behavior,* Zurich, Switzerland, August 1998; MIT Press, p. 372-377.

OTHER INTERESTS:

Indian Classical Music, Adventure/Outdoor Sports, and Martial Arts (Tae Kwon Do).