KRISTEN SUMMERS, PH.D.

CTO, Advanced Knowledge Solutions Division Group
CACI
4831 Walden Lane
Lanham, MD 20706
Phone: 301-306-2827 Fax: 301-306-8200
E-mail: ksummers@caci.com

PROFESSIONAL PREPARATION

Amherst College	Computer Science, English	B.A., 1991
Cornell University	Computer Science	M.S., 1994
Cornell University	Computer Science	Ph.D., 1998

APPOINTMENTS

2010 – present	CTO, Advanced Knowledge Solutions Division Group, CACI
2009 – 2010	Deputy CTO, Advanced Knowledge Solutions Division Group, CACI
2004 – 2009	Engineering Senior Scientist, Research and Development, CACI
2003 – 2004	Principal Researcher, Research and Development, AMS
2001 – 2003	Senior Researcher, Research and Development, Vredenburg
2000 – 2001	Senior Researcher, Research and Development, Highland Technologies
1999 – 2000	Research Engineer, Research and Development, Highland Technologies
1998 – 1999	Research Engineer, Thomson Labs

RELATED PUBLICATIONS

Borovikov, A., Borovikov, E., Colquitt, B., and Summers, K. The EDEAL Project for Automated Processing of African Languages. *Proceedings: MT Summit XII (Twelfth Machine Translation Summit)*, Ottawa. August, 2009.

Andrews, J. and Summers, K. Machine Translation for Triage and Exploitation of Massive Text Data. *Proceedings: Association for Machine Translation in the Americas* (AMTA 2008), Waikiki. October, 2008.

Summers, K. and Chandler, D. Language Processing for Analysis and Investigation. *Proceedings: Association for Machine Translation in the Americas* (AMTA 2008), Waikiki. October, 2008.

OTHER PUBLICATIONS

Zavorin, I., Borovikov, A., Borovikov, E., Hernandez, L., Summers, K., and Turner, M. A multi-evidence multi-engine OCR system. *Proceedings: Document Recognition and Retrieval XIV*, San Jose. January, 2007.

Summers, K. Document Image Improvement for OCR as a Classification Problem. *Proceedings: Document Recognition and Retrieval X*, pp. 73 - 83, Santa Clara. January, 2003.

Rus, D. and Summers, K. Using Non-Textual Cues for Electronic Document Browsing. In Nabil R. Adam, Bharat K. Bhargava, and Yelena Yesha, eds., *Digital Libraries: Current Issues*, Lecture Notes in Computer Science, chapter 9, pages 129 - 162.

Rus, D. and Summers, K. Geometric Algorithms and Experiments for Automated Document Structuring. *Mathematical and Computer Modeling*, 26(1), pages 55 - 83, 1997.

Summers, K. Near-Wordless Document Structure Classification. *Proceedings of the Third International Conference on Document Analysis and Recognition* (ICDAR 95), pp. 462 - 465, Montreal. August, 1995.

SYNERGISTIC ACTIVITIES

Adjunct faculty, Center for the Advanced Study of Language (CASL), University of Maryland, 2008 – present

System Integration PI on an interdisciplinary project including academia and industry, to automatically analyze social media for early indications of events with broad social implications, 2012–present

Taxonomy Lead on knowledge management project to improve search and discovery of relevant information in military environment, 2011 – present

Chief Technologist on surge project to enhance a suite of deployed document exploitation tools and corresponding national repository to use emerging language processing and related technologies, and to expand the Concept of Operations correspondingly, 2009 – 2011

Technical Lead on applied research project to study and improve the processing of Arabic language document content, including comparing methods of cross-lingual retrieval, studying effects of OCR errors on entity extraction, exploring methods of within- and cross-document co-reference resolution, 2006 – 2007.

COLLABORATORS AND OTHER AFFILIATIONS

Collaborators: James Andrews (Office of Naval Intelligence), Anna Borovikov (NASA), Eugene Borovikov (National Institute of Health), Diane Chandler (CACI), Bradley Colquitt (CACI), Andrew Doyle (CACI), James Ford (CACI), Luis Hernandez (Army Research Lab), Benson Margulies (Basis Technology), Naren Ramakrishnan (Virginia Tech), Hassan Sawaf (SAIC), Mark Turner (National Library of Medicine), Ilya Zavorin (CACI)

Ph.D. Thesis Advisor: John Hopcroft (Cornell University)