

## Zunaid Kazi, Ph.D.

858.525.2053  
zunaid@kazi.net

## Summary Highlights

- 19+ years experience in technology research, development and strategy
- 10+ years leadership experience in product research, development and marketing
- Expert in Text analysis, Artificial Intelligence, Natural Language Processing, Computational Linguistics, Text- and Data-mining and Information Retrieval.
- Multiple successes in conceptualizing technology innovations and steering innovation to market

## Professional Experience

**Parity Computing, San Diego, California**

**April 2002 – Present**

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### VP, Research and Development

Lead R&D initiatives for the company's text mining and knowledge discovery products and applications.

Develop key technology innovations using text analysis, NLP and machine learning techniques for deriving actionable insight from disparate data.

Manage the steering of new technology into products.

Lead and manage research and development teams (in house and offshore).

Key successes:

- Developed a novel technology that creates knowledge-rich and actionable profiles of key concepts and entities extracted and assembled from disparate data sources. This now constitute the core of several new products launched as part of the company expansion strategy.
- Conceptualized products, built and managed development teams leading to multi-million dollar product deployments to clients that include Global 100 companies.
- Filed patent with the USPTO: System and Method for Data Integration.

**Liaison Technology, Austin, Texas**

**May 2000 – December 2001**

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### Director, Technology Strategy/Director, Product Management

Led and managed research and development teams.

Architected and implemented key AI based technology innovations into products.

Directed product management for the entire Liaison product suite.

Key successes:

- Successful release of multiple products from definition, architecture, implementation to GA resulting in sales of over \$2 Million in 12 months (Dell, Context, IDC, SeaGate, Comark, etc).
- Successfully built and led cross-functional teams to take products through the lifecycle and into major functional releases on a fast-paced quarterly basis.
- Designed and developed technology innovations enabling matching of dynamic product content from different sources and was extended to support discovery, data cleansing and search.

**IBM Research, Hawthorne, New York**

**September 1997 – May 2000**

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### Research Staff Member, IBM Research, TJ Watson Research Center

Performed R&D in machine learning, knowledge management, data- and text-mining, and natural language processing.

**Key successes:**

- Developed and architected an Object-Oriented Framework for developing text analysis tools.
- Managed and worked with numerous collaborative projects that succeeded at developing innovative prototypes adopted by other divisions within IBM including a knowledge management tool to help support staff in being quickly offered the right answers in response to a client question and a system for mining and analyzing outbound calls to clients by a Financial organization.
- Filed a patent with USPTO for a novel mechanism for performing cross-document anaphora resolution whose goal was to disambiguate between names and entities across documents. Received IBM Patent Filing Award. US Pat 6,438,543.
- Developed a novel and fast algorithm for generating conceptual relationships between concept entities in text corpora.
- Developed a dictionary building tool to derive synonym guesses for vocabulary items from documents.

**Internet Division, Internet Information Technologies Group**

Performed R&D in text processing and awareness filtering for intelligent categorization of news items replacing an existing and insufficient third party solution.

**University of Delaware**  
Newark, Delaware

**February 1991 – August 1997**

**Project Lead / Post Doctoral Fellow** (September 1992 – August 1997)

Lead and managed a five-person team in developing a speech and gesture controlled assistive robot as part of a five-year \$1 Million+ government-funded grant. Work involved natural language discourse understanding, speech recognition, human-computer interaction, reactive planning and plan recognition, image recognition and knowledge representation. Developed the distributed system architecture and implemented key components of the system.

**Key successes:**

- Successfully implementation of a wheelchair mounted robotic arm that interacts with the environment on the basis of multimodal instructions.
- Published peer reviewed papers and an invited book chapter.

**Graduate Research Assistant** (February 1991 – August 1992)

Developed real-world applications for people with disabilities using advanced AI techniques.

**Key successes:**

- Created an object-oriented interpreted language called ADAPT, which was successfully used as an authoring language for an Alternate and Augmented Communication system for people with speech impairments.
- Developed an interpreter to parse and execute actions for an ATN network for a Natural Language Generation system to assist American Sign Language users in learning English as a second language.
- Developed a formal plan recognition model that distinguishes between exploration of alternative plans and commitment to a single plan for an Expert-Advisee natural language discourse understanding domain.

**Bangladesh University of Engineering and Technology**  
Dhaka, Bangladesh

**August 1988 – August 1990**

**IT Strategy Consultant, Bureau of Research, Training, and Consultancy**

Provided IT strategy, planning and design expertise to public and private enterprises including the President's Secretariat, Government of the People's Republic of Bangladesh; National Public Service Commission; World Health Organization; and Telegraph and Telephone Board.

**Lecturer, Department of Computer Science and Engineering**

Lectured undergraduate classes.

## Other Teaching Experience

- Villanova University, Department of Computer Science  
Adjunct Faculty, Summer 1997
- University of Delaware, Department of Computer and Information Sciences  
Instructor, Winter 1990

## Education

- **Ph.D.**, Computer Science, University of Delaware, Newark, DE
- **M.S.**, Computer Science, University of Delaware, Newark, DE
- **B.S.**, Electrical and Electronic Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

## Selected Publications and Patents

- James W. Cooper, Mahesh Viswanathan, Zunaid Kazi. Samsa: A Speech Analysis, Mining and Summary Application for Outbound Telephone Calls. In *Proceedings of the Hawaii International Conference on Systems and Sciences 2001*, Hawaii, January 2001.
- Zunaid Kazi and Yael Ravin. Who's Who? Identifying Concepts and Entities across Multiple Documents. In *Proceedings of the Hawaii International Conference on Systems and Sciences 2000*, Hawaii, January 2000.
- Kazi, Z.K et al. US Patent 6438543, 2002. System and method for cross-document coreference.
- Yael Ravin and Zunaid Kazi. Is Hillary Rodham Clinton the President? Disambiguating Names across Documents. In *Proceedings of the ACL 1999 Workshop on Coreference and Its Applications*, Maryland, USA, June, 1999.
- Zunaid Kazi, Matthew Beitler, Shoupu Chen, Daniel Chester and Richard Foulds. Speech Mediated Intelligent Teleoperation. Assistive Technology and Artificial Intelligence, In *Springer-Verlag Lecture Notes in Artificial Intelligence*, Volume 1458, pp. 194-210, 1998.
- Zunaid Kazi and Richard Foulds. Knowledge Driven Planning and Multimodal Control of a Telerobot. *Robotica*, Volume 16, pp. 509-516, September 1998.
- Zunaid Kazi, Shoupu Chen, Matthew Beitler, Daniel Chester and Richard Foulds. Grasping at Straws: An Intelligent Multimodal Assistive Robot. In *Proceedings of the 1997 International Conference on Rehabilitation Robotics (ICORR97)*, pp. 87-90, Bath, UK, April 1997.
- Zunaid Kazi, Shoupu Chen, Matthew Beitler, Daniel Chester and Richard Foulds. Multimodal HCI for Robot Control: Towards an Intelligent Robotic Assistant for People with Disabilities. In *Proceedings of AAAI 1996 Fall Symposium on Developing Assistive Technology for People with Disabilities*, pp. 46-52, August 1996.
- Zunaid Kazi, Shoupu Chen, Matthew Beitler, Marcos Salganicoff, Daniel Chester and Richard Foulds. Multimodal User Supervised Interface and Intelligent Control for a Rehabilitation Robot. In *Proceedings of IJCAI-95 Workshop on Developing AI Applications for the Disabled*, pp. 46-58c, Montreal, Canada, June 1995.
- Shoupu Chen, Zunaid Kazi, Richard Foulds and Daniel Chester. Multi-Modal Direction of a Robot by Individuals with a Significant Disability. In *Proceedings of the Second International Conference on Rehabilitation Robotics (ICORR 94)*, pp. 55-64, Wilmington, DE, USA, July 1994.
- Patrick Demasco, Eugene Ball, Steiner Tyvand, Dennis Blodgett, William Bradley, John Dunaway and Zunaid Kazi. Towards Modular AAC Software: An Object Oriented Architecture. In *Proceedings of the RESNA International '92 Conference*, pp. 119-121, Washington, D.C.: RESNA Press, June 1992.
- Sandra Carberry, Zunaid Kazi and Lynn Lambert. Modeling Discourse, Problem-Solving, and Domain Goals Incrementally in Task-Oriented Dialogue. In *Proceedings of the Second International Workshop on User Modeling*, pp. 192-201, Dagstuhl, Germany, August 1992.