Joseph Picone

AREAS OF SPECIALIZATION	Big Data, Machine Learning, Pattern Recognition, Artificial Intelligence, Statistics
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EDUCATION

Ph.D., Electrical Engineering (August 1980 – August 1983): Department of Electrical and Computer Engineering, *Illinois Institute of Technology*, 3300 South Federal Street, Chicago, Illinois, USA 60616-3793, Tel: 312-567-3000. Advisor: Dr. Joseph L. LoCicero; Dissertation Topic: Analytic Signal Processing.

M.S. in Electrical Engineering (August 1979 – May 1980): Department of Electrical and Computer Engineering, *Illinois Institute of Technology*, 3300 South Federal Street, Chicago, Illinois, USA 60616-3793, Tel: 312-567-3000. Major: Communications Systems (Non-Thesis Option).

B.S. in Electrical Engineering (August 1976 – May 1979): Department of Electrical and Computer Engineering, *Illinois Institute of Technology*, 3300 South Federal Street, Chicago, Illinois, USA 60616-3793, Tel: 312-567-3000. Major: Circuits and Systems, awards included Summa Cum Laude graduation honors.

EXPERIENCE

Department of Electrical and Computer Engineering, Temple University, 1947 North 12th Street, Philadelphia, Pennsylvania 19122, USA:

- *Professor (07/2009 – Present):* Co-founded the Neural Engineering Data Consortium. Created more of an emphasis on software, big data, statistics, and machine learning in our UG and graduate curricula. Established a strong collaboration with Temple Hospital and Medical School on applications of machine learning to clinical decision support.

- *Department Chair (07/2009 – 06/2012):* Increased enrollment and credit hour production significantly. Created a strong regional presence for the department. Restructured the administrative and academic programs to increase productivity and efficiency. Led the Department and College through a successful ABET review and a comprehensive internal program review.

Department of Electrical and Computer Engineering, Mississippi State University, Box 9571, Mississippi State, Mississippi, 39762, USA:

- *Professor (08/2000 – 07/2009):* Innovations included development of a widely-recognized two-semester capstone senior design course and entrepreneurship emphasis. Collaborated with the Office of Research on many congressional initiatives and research centers.

- *Associate Professor (08/1994-08/2000):* Developed advanced coursework in speech and signal processing, a digital signal processing laboratory, and undergraduate coursework designed to build computer and information technology skills.

Texas Instruments Incorporated (TI), PO Box 660199, MS 8649, Dallas, Texas 75266-0199, USA:

- *Senior Member of Technical Staff (07/1993 – 08/1994)*, Computer Science Laboratory, Central Research Laboratories. Speech recognition research for consumer and military applications; new business development.

- *Senior Member of Technical Staff (07/1991 – 07/1993)*, Systems and Information Sciences Laboratory, Tsukuba Research and Development Center (TRDC). Established TI's first international research center; established the voice processing research program.

- *Senior Member of Technical Staff (12/1989 – 07/1991)*, Speech and Image Understanding Laboratory, Computer Science Center. Pursued research into large vocabulary speech recognition with applications in telecom and medicine; initiated planning for the Tsukuba R&D Center.

- *Member of Technical Staff (09/1983 – 12/1989)*, Speech and Image Understanding Laboratory, Computer Science Center. Pursued research into large vocabulary speech recognition, integration of speech and natural language, and very low bit rate voice coding. Developed robust real-time low rate speech coding, voice fundamental frequency detection, and robust speaker independent word recognition for DARPA.

AT&T Bell Laboratories, PO Box 3033, Naperville, Illinois, 60566, USA:

- *Member of Technical Staff (09/1985 – 08/1987)*, Speech Coding, Exploratory Voice Capabilities, Exploratory Switching Systems Laboratory. Developed low cost/high performance speech recognition, AT&T's first low rate speech coding system for secure voice terminals, and the first operator assistance applications for speech recognition in the telephone network.

OTHER RELEVANT PROFESSIONAL EXPERIENCE:

- *Co-Founder (09/2015 – Present)*, Biosignal Analytics, Inc., 3701 Market Street, Philadelphia, Pennsylvania, 19104, USA. A startup company dedicated to developing healthcare analytics on dense data. A collaboration between the PIs, Temple University and the University City Science Center.

- *Director, Human Language Technology Program Management Office (01/2006 – 12/2007) and VoiceRT Program Manager (01/2005 – 12/2006), Intergovernmental Personnel Action (IPA)*, National Security Agency, 9800 Savage Road, Fort George S. Meade, Maryland, 20755, USA. Managed HLT research and development across NSA; direct supervisory control over 40 government employees, over 140 contractors, and an annual budget over $75M.

- *Director (08/1994 – Present)*, Institute for Signal and Information Processing (ISIP) and *co-Director (08/2012 – Present)*, Neural Engineering Data Consortium, 1947 North 12th Street, Room 703A, Philadelphia, Pennsylvania, 19122, USA. Internationally recognized for the dissemination of speech recognition (www.isip.piconepress.com) and bioengineering (www.nedcdata.org) resources.

OTHER ACTIVITIES	- Directly contributed to over $25M in total awards. Funded by NSF, NIH, DARPA, DoD and many major companies.
	- Conference Chair, IEEE Signal Processing in Medicine and Biology Symposium. Philadelphia, Pennsylvania, USA, (2014 – 2023).
	- Patents awarded: 9; Publications: 500+; Graduate Students: 10 PhD, 20 MS