Walter L. Johnston, Jr., Ph.D.

Selected Highlights:

- University teaching experience at graduate and undergraduate level (UTD, UTA, Tarleton).
- Large database experience (Teradata, ~850 million rows).
- Know and use inter-process communications protocols.
- Human subject clinical trials experience (UTSW, Abbott, Alcon).
- Experienced in fraud detection (USDA, Abbott, Texas Attorney General).
- 40 years experience as a Statistician (Generalized Linear Models, Logistic Regression, Survival Analysis, Log-Linear Models)
- 30 years experience using SAS.

Experience:

University of Texas at Dallas, Richardson, TX   2005-present
Lecturer, School of Management
Lecturer, School of Economic, Political and Policy Sciences
Data Librarian, McDermott Library

- Teach stat courses in School of Management and EPPS
- Teach "Introduction to SAS" mini-course
- Data management assistance for Faculty, Staff, and Students
- Consult on experimental design and statistical procedures with Faculty, Staff, and Students
- Assist with data integration and transformation
- Special projects

Alcon Lab, Ft Worth, TX   2004-2005
Consultant

- Data management and analysis for Marketing Studies using SAS and Excel
- Experimental design and sample size determination

CitiCapital, Las Colinas, TX   2003
Consultant

- Update undocumented, legacy SAS application running against undocumented, legacy datasets
- Develop SAS tools to automate reverse-engineering of legacy datasets
- Data validation and integration
- Ad-hoc report generation

University of Texas at Dallas   2003-2004
Lecturer
Department of Math and Science Programs

- Teach math/stat courses (Stochastic Processes, Actuarial Science, MBA Statistics, Data Analysis)

Tarleton State University, Stephenville, TX   2001-2002
Director of Data Warehousing and Data Mining Programs,
Center for Agribusiness Excellence
Adjunct Assistant Professor of Mathematics

- Analysis of USDA national crop insurance data for multi-year period ending 2002, building infrastructure and performing analysis in search of fraud, waste, and abuse on part of insured, agents, and adjusters (~ 850 million rows).
- Design and implementation responsibility for database, computing infrastructure, web interface, and network security / configuration.
- Responsible for algorithm selection / implementation and software package selection for data analysis.
- Modeled structure of suspected fraudulent behavior (Markovian and Log-Linear)
- Trained and lead implementation team for web interface using SAS/IntrNet.
- Ad-hoc analysis and reporting using SAS.
- Member of Institutional Review Board (Animals).
- Developed curriculum and taught graduate course in Non-Parametric Statistics.
- Faculty co-sponsor of student Linux user group.

RLX Technologies, Plano, TX   2000-2001
Chief Scientist

- Hardware and software design responsibility for ultra high-density, low-power, rack mount server, Intel x86 compatible (24 servers in 3U enclosure) for startup company.
- Designed hardware support for and software modifications to DHCP server for proprietary configuration management and systems administration support.
- Supervised staff of 8 in design and implementation of scalable remote Systems Administration mechanism including port of SNMP infrastructure and MIBs to server.
- Technical expert in presentations to venture capital firms raising over $40 million.

University of Texas at Arlington   1997-2000
Department of Information Systems and Management Science
Member of Graduate Faculty (1998-1999)
Adjunct Assistant Professor (1998-2000)
Instructor (1997-1998)

- Taught multiple sections of undergraduate Statistics (1st and 2nd Semester), responsible for development of course content and lecture notes to supplement assigned textbooks.
- Developed curriculum for two-semester graduate course sequence on Data Mining; first semester taught in Fall 1998.

Nortel Networks, Richardson, TX   1996-2000
Senior Member of Scientific Staff

- Designed, implemented, documented, and tested threshold monitoring system for Operational Measurements.
- Implemented and tested SQL based performance reports using Operational Measurements in multi-gigabyte relational database.
- Wrote multi-project coding standards for embedded system in wireless packet data system (GPRS) for both experienced C++ users and programmers converting from Protel (Nortel proprietary dialect of Pascal).
- Key reviewer for embedded system mid-level and detailed design in wireless packet data system.
- Member of Systems Test group for GPRS (packet data over wireless).

DSC Communications Corporation, Plano, TX   1992-1996
Senior Software Engineer

- As member of Subsystem and Integration Test team, developed and implemented advanced system tests of communications systems involving TCP/IP, X.25, 802.3, SDLC and asynchronous RS-232C using custom written software in conjunction with protocol analyzers and oscilloscopes.
- As software developer designed, implemented, tested, and documented forward-chaining rule system in Smalltalk for the Surveillance subsystem of the *iMTN* transmission switch. Later designed and implemented process for translating rule systems for delivery in either C or Smalltalk providing 80x performance improvement.
- Additional responsibilities include requirements development, systems analysis, subsystem design, documentation, event traces, and project milestone reviews.
- Occasional travel to customer test sites for problem resolution.

Prescob Consultants, DALLAS, TX   1992-Present
Consultant

- Consulting on experimental design, statistical data analysis, presentation and reporting using SAS, SQL and custom software.

Abbott Laboratories, Abbott Park, IL   1990-1992
Statistician, Pharmaceutical Products Division

- Responsible for statistical design, analysis, and write-up of human subject clinical trials for New Drug Application to Food and Drug Administration.
- Designed methodology and techniques for Quality Assurance automated monitoring system to watch clinical trials data for signs of possible investigator fraud (RADAR). Primary software coded in SAS.

University of Texas Southwestern Medical Center, Dallas, TX   1988-1989
Bio-statistician, Academic Computing Services

- Consulted with M.D., Ph.D. and graduate student researchers on experimental design, data analysis, hypothesis testing, general statistical modeling and article reviews for both human subject and animal trials. Primary data analysis performed in SAS.

University of Texas   1983-1988

Texas Advanced Technology Grant
Research Assistant, Dept. of Mechanical Engineering, Center for Space Research

- Responsible for system management of eight VAXes running VMS and ULTRIX, selection and installation of software (S, SCA, CART) and networking VAX, PCs, and AI workstation running Smalltalk across multiple buildings.
- Evaluated and recommended computer software and hardware purchases.
- Investigated Spatial/Temporal phenomena, specifically remotely sensed satellite data monitoring crop development and movement of large-scale phenomena ("red tides" and oil spills).

NASA Contract (NAS 9-16664)
Research Assistant, Department of Mathematics

- Participated in subcontract from NAS 9-16664 "Mathematical Pattern Recognition and Image Analysis Program" investigating techniques for use of remotely sensed data in crop classification.
- Prepared report "Classification in a Spatially Correlated Environment" establishing the order of Markov process involved in crop related remote sensing.

Texas Rural Legal Aid 1980-1982
Expert Witness

- Supervised the preparation and validation of databases in support of Federal Employment Discrimination cases using SAS.
- Presented methodology and results in federal court testimony as foundation for evidence of economic discrimination for suits involving multiple plaintiffs.

Texas Attorney General's Office, Anti-Trust Division 1977-1979
Investigator

- Support for complex litigation.
- Supervised preparation and validation of database for analysis of price fixing/market allocation cases in public and private procurement.
- Performed data analysis using Bank and STP programs on DEC-20.

Applications Packages:

SAS	Statistics package; extensive data manipulation, analysis, and graphics
R	Statistics package; similar to S; extensive data analysis and graphics
Teradata	Very large scale RDBMS from NCR (highly scalable hardware and software combination; terabyte to petabyte size).

Foreign Languages:

Spanish: read, write, and speak proficiently

Programming Languages:

APL, Basic, C, C++, Forth, Fortran, ISETL, J, Java, LISP, Pascal, Prolog, Python, Snobol, Smalltalk, SQL, Tcl/Tk.

Education:

Ph.D., Statistics, Minor Areas: Simulation, Artificial Intelligence, University of Texas, Austin, Texas; Dissertation title: "A Tree-Based Modeling Strategy" (1988).

B.A., Statistics, University of Texas, Austin, Texas (1980)

References available on request.

Publications:

Little, Bertis B., Walter L Johnston, Ashley C. Lovell, Steve Steed, Vondie O'Connor, Garland Westmorland, Don Stonecypher, "Data Mining U.S. Corn Fields", *Proceedings of the First SIAM International Conference on Data Mining*, 1:99-104, 2001

Little, B. B., L. M. Snell, T. T. Van Beveren, R. B. Crowell, S. Traylor, D. White, and W. L. Johnston, "Treatment of substance abuse during pregnancy and infant outcome", *Journal of Psychoactive Drugs* (accepted for publication, June 2001)

Nemunaitis, John, Steven Klemow, Alex Tong, Alice Courtney, Walter Johnston, Michael Mack, Wayne Taylor, Max Solano, Marvin Stone, John Mallams, Gabriele Mues, "Prognostic Value of K-*ras* Mutation, *ras* Oncoprotein, and c-*erb* B-2 Oncoprotein Expression in Adenocarninoma of the Lung", *American Journal of Clinical Oncology* 21(2): 155-160, 1998.

Little, B. B., S. M. Ramin, B. S. Cambridge, N. R. Schneider, D. S. Cohen, L. M. Snell, M. J. E. Harrod, and W. L. Johnston, "Risk of chromosomal abnormalities, with emphasis on live-born offspring of young mothers", *American Journal of Human Genetics* 57:1178-1185, 1995.

Snell, L. M., B. B. Little, K. A. Knoll, W. L. Johnston, C. R. Rosenfeld, and N. F. Grant, "Reliability of birth certificate reporting of congenital anomalies", *American Journal of Perinatology* 9:219-222, 1992.

Little, B. B., F. E. Ghail, L. M. Snell, K. A. Knoll, W. L. Johnston, and L. C. Gilstrap, "Is hyperthermia teratogenic in the human?", *American Journal of Perinatology* 8:185-189, 1991.

Little, B. B., L. M. Snell, G. D. Wendel, L. C. Gilstrap, M.D., W. L. Johnston, K. L. Gluck, "Prevalence of HIV in pregnant intravenous drug users in Dallas, Texas", *Texas Medical Journal* 87:81-83, 1991.

Christmas, J. T., B. B. Little, W. L. Johnston, C. E. L. Brown, R. Santos, and S. K. Theriot, "Nomograms for the rapid estimation of intravascular intrauterine transfusion volume", *Obstetrics and Gynecology* 75:887-891, 1990.

Little, B. B., L. M. Snell, W. L. Johnston, K. A. Knoll, and P. H. Buschang, "Blood lead levels and growth status of children", *American Journal of Human Biology* 2: 265-269, 1990.

Little, B. B., L. M. Snell, L. C. Gilstrap, and W. L. Johnston, "Patterns of substance abuse during pregnancy: Implications for the mother and fetus", *Southern Medical Journal* 83:507-509 and 518, 1990.