

MATTHEW C. HUTCHESON

Tegra Analytics, LLC
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PHILOSOPHY

Statistics is the science of understanding data; exploring and analyzing data is the process by which this understanding takes form.

POSITIONS HELD — SUMMARY

Tegra Analytics, LLC, Doylestown, PA
Partner, 2002–present

Delaware Valley University, Doylestown, PA
Adjunct Professor, 2011–2015

Widener University, Chester, PA
Adjunct Professor, 2006–2012

ProMetrics Consulting, Inc., King of Prussia, PA
Vice President, 1997–2002
Senior Analyst, 1995–1997

Health Outcomes Technologies, Doylestown, PA
Outcomes Research Associate, 1994–1995

Data Description, Inc., Ithaca, NY
Data Analyst, Consultant and Software Designer, 1993–1994

Cornell University, Ithaca, NY
Research Assistant, 1993–1994
Teaching Assistant, 1990–1993

EDUCATION

Cornell University, Graduate School, Ithaca, NY
Masters of Science in Statistics, 1995
Thesis: *Trimmed Resistant Weighted Scatterplot Smooth*
Major Advisor: Dr. Paul Velleman. Minor Advisor: Dr. Martin Wells.

Cornell University, Undergraduate School, Ithaca, NY
Bachelor of Science with Honors, 1992
Thesis: *Graphical Methods in Multivariate Statistical Quality Control*
Advisor: Dr. John Bunge.

POSITIONS HELD — DETAILS

Tegra Analytics, LLC, Doylestown, PA

Founder and Partner, 2002–present

- Develop compensation programs, web sites, database architectures, reports and pay-out calculators for biopharmaceutical and dental companies.
- Lead statistical group for Phase I, II, III and IV clinical trials.
- Researched and published with principal investigators at University of Pennsylvania, University of Pittsburgh and University of Buffalo (Anesthesia).
- Create and implement sales force deployments for newly launched and mature products including data integration and call targeting analysis.
- Exploratory data analysis on sales and marketing program effectiveness.
- Design and create executive management reports and dashboards.
- Develop data verification applications that apply statistical methodology to detect outliers, trends breaks and other data anomalies.
- Create statistical trainings for biopharmaceutical sales analytics departments.
- Create data presentations and trainings for over 750 sales representatives.

Delaware Valley University, Doylestown, PA

Adjunct Professor, 2011–2015

Refer to the Teaching section for course details.

Widener University, Chester, PA

Adjunct Professor, 2006–2012

Refer to the Teaching section for course details.

ProMetrics Consulting, Inc., King of Prussia, PA

Vice President, 1997–2002

Senior Analyst, 1995–1997

- Planned, led and executed the development efforts of all co-workers including programmers, statisticians, analysts, project managers, web developers, graphic designers, database architects and network administrators.
- Maintained and expanded client relationships with integrity and excellent work quality.
- Advised senior-level sales and marketing executives for several pharmaceutical and biopharmaceutical clients.
- Researched and published with lead physicians at UCSF Hospital (HIV/AIDS) and London's Royal Brompton Hospital (Cystic Fibrosis).
- Created interactive optimal sales force size, patient capture and revenue generating applications.
- Created and maintained sales force alignments and strategic targets.
- Forecasted product sales and designed sales force compensation packages.
- Designed/architected databases to work effectively with report making applications.
- Developed and maintained over a dozen websites.
- Analyzed patient satisfaction surveys (e.g., MOS-36) and pharmaceutical financials.

Health Outcomes Technologies, Doylestown, PA

Outcomes Research Associate, 1994–1995

- Modeled length of stay, hospital charges, pharmacy charges and ZIP code based demographics on hospital discharge and group practice data for several diseases.
- Created outcomes measures for pneumonia and coronary heart disease.
- Investigated longitudinal drug use patterns in Parkinson's patients.
- Designed and programmed a Regional Business Unit Return On Investment (RBU ROI) system.

Data Description, Inc., Ithaca, NY

Data Analyst, Consultant and Software Designer, 1993–1994

- Conducted statistical consulting and data analysis.
- Provided technical and statistical support.
- Designed several templates for Data Desk, a statistical software package.
- Worked in teams with programmers to test the validity, reliability and performance of Data Desk.

Cornell University, Ithaca, NY

Research Assistant, 1993–1994

Teaching Assistant, 1990–1993

- Developed and designed DASL, an NSF-sponsored web site that contains stories and data files for statistics teachers.
- Worked jointly with Ohio State University creating multimedia teaching methods: "Technology Based Learning: Exploring Statistical Concepts and Methods."
- Prepared, organized and lectured statistical concepts to 20+ students per semester.
- Philosophy: Taught students methods before formulas and understanding before applying.

PUBLISHED WORKS

- Wang S, Giannakopoulos H, Lowstetter J, Kaye L, Lee C, Secreto S, Ho V, **Hutcheson MC**, Farrar JT, Wang P, Doyle G, Cooper SA, Hersh EV. (2017). *Lack of Methemoglobin Elevations After Topical Applications of Benzocaine Alone or Benzocaine Plus Tetracaine to the Oral Mucosa*. *Clinical Therapeutics* 8(8):1-6.
- Hersh EV, Lindemeyer R, Berg JH, Casamassimo PS, Chin J, Marberger A, Lin BP, **Hutcheson MC**, Moore PA. (2017). *Phase Four, Randomized, Double-Blinded, Controlled Trial of Phentolamine Mesylate in Two- to Five-year-old Dental Patients*. *Pediatric Dentistry* 39(1):39-45.
- Bockow R, Korostoff J, Pinto A, **Hutcheson M**, Secreto SA, Bodner L, Hersh EV. (2013). *Characterization and Treatment of Postsurgical Dental Implant Pain Employing Intranasal Ketorolac*. *Compendium of Continuing Education in Dentistry*, 34(8):570-576.
- Ciancio SG, **Hutcheson MC**, Ayoub F, Panthera Jr. EA, Garlapo DA, Sobieraj BD, Almubarak SA. (2013). *Safety and Efficacy of a Novel Nasal Spray for Maxillary Dental Anesthesia*. *J Dent Res*, 92(7S):43-48.
- Giannakopoulos H, Levin LM, Chou JC, Cacek AT, **Hutcheson M**, Secreto SA, Moore PA, Hersh EV. (2012). *The Cardiovascular Effects and Pharmacokinetics of Intranasal Tetracaine plus Oxymetazoline*. *J Am Dent Assoc* 143(8):872-880.
- Moore PA, Doll B, Delie RA, Hersh EV, Korostoff J, Johnson S, Goodson JM, Halem S, Palys M, Leonel JS, Kozlowski VA, Peterson C, **Hutcheson M**. (2007). *Hemostatic and Anesthetic Efficacy of 4% Articaine 1:200,000 Epinephrine and 4% Articaine 1:100,000 Epinephrine when Administered Intraorally for Periodontal Surgery*. *J Periodontology*. 78(2):247-253.
- Moore PA, Boynes SG, Hersh EV, DeRossi SS, Sollecito TP, Goodson JM, Leonel JS, Floros C, Peterson C, **Hutcheson M**. (2006) *The Anesthetic Efficacy of 4% Articaine 1:200,000 Epinephrine: Two Controlled Clinical Trials*. *J Am Dent Assoc* 137(11):1572-1581.
- Hersh EV, Giannakopoulos H, Levin LM, Secreto SA, Moore PA, Peterson C, **Hutcheson M**, Bouhajib M, Mosenkis A, Townsend RR. (2006). *Pharmacokinetics and Cardiovascular Effects of High Dose Articaine with 1:100,000 and 1:200,000 Epinephrine*. *J Am Dent Assoc* 137(11):1562-1571.
- Kahn JO, Deeks S, **Hutcheson M**, Jacobsen M, Hecht F, Grant R, Drolson T, Volberding P and Stansell J. (1999). *HIVWatch: A Web-Based Electronic Database for Monitoring Trend in HIV Disease Progression at San Francisco General Hospital Initial presentation of the ongoing prospective database*. Poster Session / 212. I. Paper #/ 2182.
- Velleman PV, **Hutcheson MC**, Meyer MM, Walker JH. (1996). “*DASL, The Data And Story Library; An Online Resource for Teaching Statistics*.” Proceedings of the Statistical Computing Section, The American Statistical Association, Alexandria, VA.
- Angus DC, Linde-Zwirble WT, Sirio CA, **Hutcheson MC**, Rotondi AJ, Chelluri L, Duey M, Newbold RC, Pinsky MR. (1995). *Predicting ICU length of stay using a generalized linear model*. *Am J Resp Crit Care Med*;151(4):A492.

Angus DC, Linde-Zwirble WT, Sirio CA, **Hutcheson MC**, Rotondi AJ, Chelluri L, Duey M, Newbold RC, Pinsky MR. (1995). *The effect of managed care on resource consumption in the ICU*. Am J Resp Crit Care Med;151(4):A492.

Angus DC, Linde-Zwirble WT, Chelluri L, Sirio CA, **Hutcheson MC**, Rotondi AJ, Duey M, Newbold RC, Pinsky MR. (1995). *Post-discharge resource consumption after prolonged mechanical ventilation*. Am J Resp Crit Care Med;151(4):A492.

THESES AND OTHER MANUSCRIPTS

Hepner L, Linde D, Weber C, Smith D. (2005). *Alternative On-Lot Technology Research: Soil-Based Treatment Systems*. Contributing statistical consultant with Delaware Valley University, Doylestown, PA.

Hutcheson MC. (1996). *User-animated Updating Scatterplot with Location and Bandwidth Parameters*. Submitted to the American Statistical Association Joint Statistical Meetings.

Angus DC, Linde-Zwirble WT, Sirio CA, **Hutcheson MC**, Rotondi AJ, Newbold RC, Pinsky MR. (1995). *Rural-Urban Differences in ICU use in Florida*. Submitted to the American College of Chest Physicians Annual Scientific Meeting.

Angus DC, Linde-Zwirble WT, Sirio CA, **Hutcheson MC**, Rotondi AJ, Newbold RC, Pinsky MR. (1995). *Prediction of In-hospital mortality following community acquired bacterial pneumonia*. Submitted to the American College of Chest Physicians Annual Scientific Meeting.

Hutcheson MC. (1995). *Trimmed Resistant Weighted Scatterplot Smooth*. Master's Thesis. Cornell University, Ithaca, NY.

Hutcheson MC. (1992). *Graphical Methods in Multivariate Statistical Quality Control*. Senior Honors' Thesis. Cornell University, Ithaca, NY.

Hutcheson MC. (1992). *Population Science*. A discussion of stochastic and chaotic methods of modeling populations and the inevitability of extinction. Cornell University, Ithaca, NY.

Hutcheson MC, Wang SC. (1992). *Run-Estimation Methods in Baseball*. Cornell University, Ithaca, NY.

Hutcheson MC. (1992). *Europe 1992 — Labor Productivity and Wages*. An analysis of social dumping, companies moving from one country to another country for lower labor costs. Cornell University, Ithaca, NY.

TEACHING

DELAWARE VALLEY UNIVERSITY

Adjunct Professor, 2011–2015

Introduction to Statistical Data and Research (GE 6015), Fall 2012, Spring 2013, Fall 2013, Spring 2014, Spring 2015

This course develops the necessary competencies to understand and evaluate the research of others, as well as plan and conduct their own research. The course focuses on the practical problems encountered in research beginning with the formulation of the question and continuing through the preparation of the final documents.

WIDENER UNIVERSITY

Adjunct Professor, 2006–2012

Foundations of Educational Measurement (ED 503), Fall 2006, Spring 2009

Explores the role of measurement, testing and evaluations in education. Topics include principles of test construction, issues related to the reliability of measurement instruments, methods of assessing the validity of test procedures and techniques of item analysis.

Educational Statistics (ED 710), Summer 2007

Examines multivariate statistical models including Multiple Regression, ANOVA, ANCOVA, MANOVA, MANCOVA, Repeated Measures, Principal Components Analysis, Factor Analysis and Discriminant Function Analysis. The course is designed to test hypotheses associated with inference and prediction in educational research.

PROFESSIONAL STATISTICAL SEMINARS

The seminar covers graphical displays and statistical analyses such as correlation, regression, ANOVA and Repeated Measures. Attendees come away with a better understanding of visualizing data, exploratory data analysis and statistical techniques.

Incyte Corp, Michele Sample, October 2019 (1 day, 100 participants)

UCB Pharma, Inc., Rhett Frye, September 2008 (1 day, 8 participants)

Biovail Pharmaceuticals, Inc., Michelle Maddix-Sovero, March 2006 (1 day, 6 participants)

Janssen, L.P., Ed McDonnell, December 2004 (1 day, 20 participants)

Navy Federal Credit Union, Eddie Pruitte, Jr., August 2001 (1 day, 1 participant)

Weyerhaeuser, Debra Hunter-Bonner, February 2000 (3 days, 5 participants)

Sappi Fine Paper, Knapp Hudson, February 1999 (3 days, 25 participants)

Rhone Poulenc, David Long, June 1998 (3 days, 15 participants)

CORNELL UNIVERSITY

Teaching Assistant, 1990–1993

Statistical Reasoning I, Spring 1990, Fall 1990

An introduction to the basic concepts of statistics: measures of location and variability, probability, estimation, confidence intervals, hypothesis tests, regression and correlation.

Statistical Reasoning II, Spring 1991, Fall 1991

Examine time series analysis, autocorrelation, collinearity, indicator variables and use diagnostic plots to assess deviations in the assumptions. Analysis of variance and contingency tables conclude the course.

Design of Sample Surveys, Spring 1992

This course applies statistical methods to the sampling of human populations. A thorough treatment of the concepts and problems of sample design with respect to cost, procedures of

estimation, and measurement of sampling error.

Applied Regression Methods, Fall 1992

The standard least-squares theory is developed and regression analysis techniques are applied to everyday problems. In-depth exploration of deviation from assumptions, multi-collinearity, and variable selection methods build a working foundation for sound regression analyses.

Techniques of Multivariate Analysis, Spring 1993

The techniques of multivariate statistical analyses, the associated assumptions, the rationale for choice among techniques and illustrative applications. Includes principal component analysis, factor analysis, discriminant analysis and multivariate tests on means and variances.

PRESENTATIONS AND ACTIVITIES

- July 2024 – attended webinar by Pharmaceutical Management Science Association, *Navigating GenAI Implementation in Life Sciences*. Frankfort, KY.
- March 2024 – invited speaker on *How to Lie with Statistics*. Synergistix Users Conference. Pompano Beach, FL.
- February 2024 – attended webinar by Pharmaceutical Management Science Association, *Data Optimization Unleashed: Driving Pharma Success with LLM-Powered Analytics*. Santa Clara, CA.
- January 2024 – attended webinar by Pharmaceutical Management Science Association, *Navigating the New Landscape with LLM-Powered Analytics for Life Sciences*. Mount Royal, NJ.
- March 2023 – invited speaker on *Mathematics in Everyday Life*. Synergistix Users Conference. Pompano Beach, FL.
- December 2022 – attended webinar by Pharmaceutical Management Science Association, *Keeping Omnichannel Marketing Analytics Simple*. Frankfort, KY.
- May 2020 – attended webinar by Jiangtao Gou, *Statistical Multiplicity in Clinical Studies*. Drexel University, Philadelphia, PA.
- February 2020 – attended *Annovera* new product launch meeting. TherapeuticsMD. Las Vegas, NV.
- January 2020 – attended webinar by Stephen J. Ruberg, *Subgroup Analysis Identification: The Hardest Problem There Is*. Silver Spring, MD.
- October 2019 – invited interview on *Executive Leaders Radio*. Radio America. King of Prussia, PA.
- October 2019 – invited speaker on *Statistics in Clinical Studies*. Incyte Corp. Wilmington, DE.
- April 2019 – invited speaker on *The Art & Science of Data Analysis*. Synergistix Users Conference. Fort Lauderdale, FL.
- April 2019 – attended webinar by Mark Levenson, *The use of real-world data and real-world evidence at the US FDA: Recent Initiatives and Activities*. Silver Spring, MD.
- April 2019 – attended webinar by David Madigan, *Massive analysis of real-world data: a new paradigm for observational studies*. Columbia University, NY.
- April 2019 – attended webinar by Elizabeth Stuart, *Opportunities for, and complexities of, using real-world data for non-experimental comparison group designs*. Johns Hopkins, MD.
- March 2019 – attended webinar by Dick De Veaux, *Predictive Analytics for Smarter Business Decision Making*. Cary, NC.
- January 2019 – attended End of Phase II meeting with the FDA. Silver Spring, MD.
- April 2018 – invited speaker on *10 IC plans In 20 Minutes*. Synergistix Users Conference. Pompano Beach, FL.
- October 2017 – attended webinar by Frank Bretz, *How the ICH E9 Addendum around estimands may impact our clinical trials*. Sponsored by the ASA Philadelphia Chapter. Philadelphia, PA.
- August 2017 – attended Joint Statistical Meetings. Sponsored by the ASA. Baltimore, MD.
- March 2017 – invited speaker on *Taking the Pain Out of Dentistry*. Synergistix Users Conference. Pompano Beach, FL.
- August 2016 – attended webinar by Scott W. Miller, *Biostatistical Interactions with the FDA*. Sponsored by the ASA New Jersey Chapter. Plainsboro, NJ.
- June 2016 – received approval letter from FDA on a New Drug Application for the nasal spray local anesthesia *Kovanaze*®. The first product that allows dental anesthesia to be administered through a nasal spray without a needle. Washington, DC.
- March 2016 – received approval letter from FDA on a Supplemental New Drug Application for the local anesthesia reversal agent *OraVerse*® in the pediatric population. Washington, DC.

March 2016 – invited speaker on *Random and Assignable Variability*. Synergistix Users Conference. Deerfield Beach, FL.

March 2016 – attended Sales Operations Leadership Council forum. Bridgewater, NJ.

March 2015 – invited speaker on *Dynamic Data Analysis*. Synergistix Users Conference. Deerfield Beach, FL.

October 2014 – attended course on *Business Analytics: Statistics and Big Data*. Sponsored by the ASA Philadelphia Chapter. Fort Washington, PA.

November 2013 – attended webinar by Richard Machanoff, *FDA 21 CFR Part 11 - IT's Role in Part 11 Compliance*. EITAGlobal. Fremont, CA.

October 2013 – invited speaker on *Trends in Incentive Compensation*. Sales Operations Leadership Council (SOLC). Parsippany, NJ.

September 2013 – attended course on *Quantitative Approaches to Personal Finance*. Sponsored by the ASA Philadelphia Chapter. Fort Washington, PA.

February 2013 – attended course by Dick De Veaux, *Exploring Interactive and Visual Data Mining*. Princeton, NJ.

August 2012 – attended Phase III meeting with the FDA. Washington, DC.

May 2012 – attended course on *Applied Survival Analysis*. Sponsored by the ASA Philadelphia Chapter. Fort Washington, PA.

March 2012 – attended course on *Applied Mixed Models*. Sponsored by the ASA New Jersey Chapter. Piscataway, NJ.

February 2012 – attended the annual Philadelphia chapter of the American Statistical Association meeting. Philadelphia, PA.

November 2011 – invited speaker on *Forecasting: Theory and Practice*. Sales Operations Leadership Council (SOLC). Somerset, NJ.

September 2011 – attended the FDA/Industry Statistics Workshop. Sponsored by the ASA Biopharmaceutical Section and the FDA Statistical Association. Washington, DC.

March 2011 – attended end of Phase II meeting with the FDA. Washington, DC.

April 2010 – special awards judge in statistical science. Delaware Valley Science Fairs. Oaks, PA.

March 2010 – attended webinar on *Data Monitoring in Practice: Marking Your Data Monitoring Committee Effective*. Sponsored by the ASA Biopharmaceutical Section. Alexandria, VA.

March 2010 – attended Phase II & III planning meeting for a local anesthetic. Washington, DC.

February 2010 – attended the 2010 Strategic Planning meeting. Johnson & Johnson, NJ.

February 2009 – attended the annual Philadelphia chapter of the American Statistical Association meeting. Philadelphia, PA.

December 2008 – attended webinar on *Bioequivalence*. Sponsored by the ASA Biopharmaceutical Section. Eli Lilly, PA.

October 2008 – invited speaker at Cornell University Statistics and Mathematics department. *Statistical Consulting & Career Opportunities*. Ithaca, NY.

September 2008 – developed and led statistical analysis seminar for pharmaceutical analytics department. Atlanta, GA.

January 2008 – attended course on *The True Meaning of i.i.d. in Statistics*. Sponsored by the ASA Philadelphia Chapter. Horsham, PA.

April 2007 – attended course on *Linear Mixed Models*. Sponsored by the ASA Biopharmaceutical Section. Eli Lilly, PA.

April 2007 – invited guest of a Benjamin Franklin Laureate to the annual awards ceremony. Franklin Institute, Philadelphia, PA.

March 2007 – attended course on *Multiple Comparisons in Clinical Trials*. Sponsored by the ASA Biopharmaceutical Section. Eli Lilly, PA.

March 2007 – invited speaker at Cornell University Statistics and Mathematics department.
Statistical Consulting & Company Ownership in the fields of biopharmaceuticals and clinical trials. Ithaca, NY.

January 2007 – attended the annual Philadelphia chapter meeting of the American Statistical Association. Philadelphia, PA.

Summer 2006 – developed and led statistical analysis, Microsoft Excel and Microsoft PowerPoint training programs for sales measurement department. Biovail, NJ.

April 2006 – received approval letter from FDA on a New Drug Application for the local anesthetic *Septocaine® with epinephrine 1:200,000.* Washington, DC.

April 2006 – attended manager’s meeting for new product launch. Johnson & Johnson, NJ.

April 2006 – guest lectured at Cornell University to Masters of Professional Studies in Statistics. Ithaca, NY.

January 2006 – attended the Pharmaceutical Management Science Association conference on ROI and Promotion Response. Bridgewater, NJ.

September 2005 – facilitated the 2006 Incentive Compensation Focus Groups. Johnson & Johnson, NJ.

September 2005 – attended the FDA/Industry Statistics Workshop. *Safety and the Critical Path: Keys to Successful Development of Medical Products.* Sponsored by the ASA Biopharmaceutical Section and the FDA Statistical Association. Washington, DC.

July 2005 – attended the Applied Nonlinear Statistical Methods short course. Sponsored by ASAP. Philadelphia, PA.

Summer 2005 – supported the sales force deployment and sales analyses of two new company divisions. Johnson & Johnson, NJ.

October 2004 – guest speaker at the Philadelphia chapter of the American Statistical Association. *Statistical Consulting & Company Ownership.* Fort Washington, PA.

May 2004 – attended the 2005 Strategic Planning meeting. Johnson & Johnson, NJ.

December 2004 – founded **Tegra Estates, LLC** with Duane Heydt and Dave Heydt.

December 2004 – featured in an *AMSTAT News* article. Fort Washington, PA.

November 2003 – developed and led Microsoft Excel training program for sales measurement department. Johnson & Johnson, NJ.

October 2003 – attended the Cognos Pharmaceutical Forum, Effectively Targeting High-Value Prescribers. Princeton, NJ.

September 2003 – attended a Health Care Compliance, Drug Safety and Privacy Compliance meeting. Princeton, NJ.

September 2003 – attended the FDA/Industry Statistics Workshop. *Statistics: From Theory to Regulatory Acceptance.* Sponsored by the ASA Biopharmaceutical Section and the FDA Statistical Association. Bethesda, MD.

April 2003 – developed sales data training program for 750+ biopharmaceutical sales representatives. Johnson & Johnson, NJ.

March 2003 – developed statistical and analytical training program for 30 person sales analytics department. Johnson & Johnson, NJ.

November 2002 – developed large web site resource for sales measurement & operations department. Johnson & Johnson, NJ.

April 2002 – founded **Tegra Analytics, LLC** with Duane Heydt.

June 2002, December 2001, April 2001 and November 2000 – developed and assisted District Manager training with Johnson & Johnson, NJ.

August 2001 – attended the corporate executive strategy meeting with Vice President of Savient Pharmaceuticals, Inc. Newport, RI.

May 2000 – invited guest to ASCO with ImClone Systems Incorporated. New Orleans, LA.

May 1999 – guest lecturer at Williams College on graphical displays of large data sets, animating plots and the effective use of colors in displays. Williamstown, MA.

February 1999 – attended a seminar on Presenting Data and Information by Edward Tufte. The seminar explored graphical presentation methods for complex parametric data and optimal/efficient design. Philadelphia, PA.

October 1998 – MSCE 1140 Preview of SQL Server 7.0, Certificate of Achievement. King of Prussia, PA.

Fall 1998 – attended a week conference on NET Success, a professional evaluation of Ethics, Finance, Recreation, Education, Health, Career and Family. Bigfork, MT.

Fall 1998 – attended a Microsoft Advanced Web Development Seminar focusing on e-commerce and interactive web sites. Washington, DC.

Fall 1998 – attended the Microsoft Healthcare Users Group 4th Annual (MSHUG) Windows on Healthcare conference. Orlando, FL.

Fall 1997 – led a workshop on *Clinical Research on the Internet - A Simulation at the National Managed Health Care Congress (Executive Briefing Series)*. Philadelphia, PA.

Spring 1997 – led a presentation on *Successful Strategies For Implementing Alternative Sales Channels: Beyond The Traditional Sales Force*. Philadelphia, PA.

Summer 1996 – delivered the invited presentation on "*DASL, the Data and Story Library: An Online Resource for Teaching Statistics*," with Velleman P.V., Meyer M.M., and Walker J.H. Proceedings of the Statistics Education Section of the American Statistical Association Joint Statistical Meetings. Chicago, IL.

Summer 1996 – contributing speaker on *User-animated Updating Scatterplot with Location and Bandwidth Parameters*. American Statistical Association Joint Statistical Meetings. Chicago, IL.

Winter 1996 – led a 1/2 day presentation on *Getting up to Speed & Online Demonstration* at the Providing Patient Education via the Internet conference. Miami, FL.

Winter 1995 – led a presentation on *How to Market Your Healthcare Products and Services on the Internet*. New Orleans, LA.

Summer 1994 – contributing speaker on *Trimmed Resistant Weighted Scatterplot Smooth (TREWESS)*. American Statistical Association Joint Statistical Meetings. Toronto, Canada.

Summers 1994, 1995, 1996, 1997, 1998, 2017 – attended the American Statistical Association National Conference.

TECHNICAL

**Internet
Applications**

HTML, Python, Active Server Pages, VBScript, JavaScript, IIS, FTP
SQL Server, Excel, PowerBI, PowerPoint, Word, Access, Visual FoxPro,
DataDesk, JMP, R, SAS, SPSS, Systat, Cognos, Crystal Reports

**Graphics
Platforms**

Adobe PhotoShop, Aldus Pagemaker
Windows and Macintosh

Data

IMS/IQVIA DDD, IMS/IQVIA Xponent, IMS/IQVIA National
Prescription Audit, IMS/IQVIA MII, Symphony/Wolters Kluwer (NDC),
Verispan, Aileron, Access Monitor, Fingertip Formulary, Wholesaler,
Factory direct, AMA physician, MEDPAR, Medical claims, Client direct
expense, Patient survey, Census, Clinical trial, MedDRA, WHO Drug