Sheila Braun

Phone: (802) 382-7349

Email: akaEmma@gmail.com

Currently residing in Vermont

Professional Summary:

Statistician, programmer, writer, editor, and instructor with 15 years of work and management experience doing statistical and biostatistical research in highly regulated academic settings. Specialty areas include overseeing teams for medical and non-medical research according to strict timelines and budgetary requirements; clinical trials; regulatory and IRB submissions to the highest ethical standards and integrity; quality initiatives driven by committee standards; guidance on standards, processes, and technical topics to project leads; quantitative and qualitative analysis; literature reviews; developing research questions; data gathering; database design; study design and implementation; reporting results; recommendations for policy changes and further research; presentation of results through live presentations, powerpoint, or documents. Varied career encompassing graduate study in biostatistics and English as well as a bachelor's degree in communication reflects versatility and ability to learn quickly and adapt to any challenging environment. Spoken languages are English and Portuguese with a smattering of Spanish.

Skills

- Creating strategies for study design and analysis
- Practical Machine Learning
- Google Analytics and Tag Manager
- Developing Data Products
- Project leadership; management of research and programming teams across multiple projects in a variety of settings
- Data management and data structure design with software such as SQL
- Defining project requirements to meet specific endpoints
- Creating statistical plans for all clinical and case study research phases
- Excellent communication and teamwork skills
- Software engineering in many languages and operating systems (R, Python and machine language)
- Building analytical models for clients and analyzing their data
- Statistics programming scripting languages and others, such as in Stata, R, XML, SPSS, PSPP, Mathematica, Matlab, SAS, Statistica, Atlas.ti, and others; Bayesian analysis, including the use of Markov chain Monte Carlo methods (programming in R)
- Prototyping models as clients required
- Numerous statistical methods (ANOVA, regression, power analysis, and many methods for analyzing binary, categorical, scalar, or qualitative data)
- Experiential knowledge not only of how to perform statistical analyses, but when doing so is appropriate (matching data to analysis procedure)
- Creating strategies for studies of various sorts, including background research, proposals, study design, analysis, reporting results, and recommendations for policy changes or additional study
- Randomization and sampling methods
- Survey design and deployment
- Establishing protocols for data collection
- Blind and non-blind study methods, including unblinding treatment assignments related to unexpected events and appropriately handling unblinded information
- Assessment of the statistical impact of protocol deviations and ability to update strategies, keeping the project endpoint in view
- Statistical reporting according to standardized documentation standards
- Excellent writing skills: familiar with clinical study protocols and case report forms (CRFs) as they pertain to statistical strategies and methodologies
- Editing and contributing to peer-reviewed articles or white papers
- Deriving new statistical strategies from other people's research; keeping up to date on the latest relevant statistical methodologies
- Preparation of IRB documentation; identification of specific ethics issues
- Teaching (as teaching assistant in English at Boston College and in SAS at the University of Vermont)
- All aspects of Microsoft Office (Excel, PowerPoint, Word, Access, Publisher) and other suites of office tools, including the use of macros

- Windows, Linux, and Macintosh operating systems
- Git, GitHub, Markdown, Knitr
- Web site design and development
- Editing of technical, academic, and other types of documents
- Presentation of results to groups or individuals using PowerPoint and other presentation aids
- Writing reports to justify ongoing research
- Ad hoc statistical consulting on a large variety of projects
- Extremely fast learner
- Able to adapt to any new work or living environment, overseas or in the U.S.
- Conversational Brazilian Portuguese
- Familiarity with being on the receiving end of medical devices

Experience

Anovisions **Feb 2009 - Present**

President and CEO - Statistician – Biostatistician

- Founded and developed a successful statistics and editing consulting firm
- Hired and manage a team of 6 sub-contractors to work on a variety of studies
- Tasks include study design, proposals, presentations of study plans, background research, methodology descriptions, sampling methods, survey design and deployment, data validation, database design, reports of results, recommendations for policy change or further study, using the skills listed above in this resume
- Edit dissertations and provide dissertation coaching
- Review journal articles prior to publication
- Maintenance and aggregation of data sets; intensive analysis of these data sets to provide a detailed picture of what can be learned from them; authoring macros to automate a variety of complex processes related to statistical analysis of this data (SPSS, SAS, R, Word, and other macro languages)
- Code transfer from SPSS or SAS to R
- Website development

Education

Master of Science in Biostatistics, in process, University of Vermont, VT

- Teaching Assistant in SAS Programming, correcting assignments and helping students with questions
- Invitational Fellowship in Transportation Issues

Master of Arts in English, Boston College, Boston, MA

- Teaching Assistant in English Writing Skills with full responsibility for a class of freshmen
- Wrote for the Boston College Newspaper

Bachelor of Science, Messiah College, Mechanicsburg, PA

- Who's Who in American Colleges and Universities
- Active in many extracurricular activities, including writing and acting

Certifications

- R Programming, Johns Hopkins University, License 2HWX3JADBU23. From April 2018, no expiration. Grade: 92%.
- Advanced R Programming, Johns Hopkins University, License 23BRGENXAFC4. From July 2018, no expiration. Grade: 100%.
- Developing Data Products, Johns Hopkins University, License H4FDATVU6PPF. From August 2018, no expiration. Grade: 98.1%.
- Practical Machine Learning, Johns Hopkins University, License 4HG4W3X3S5RP. From August 2018, no expiration. Grade: 98.1%
- Regression Models, Johns Hopkins University, License P6PHZDBBVUDF. From July 2018, no expiration. Grade: 98.5%.
- Using Databases with Python, University of Michigan, License DVTJ895L6CCD. From May 2018, no expiration. Grade: 100%.
- Using Python to Access Web Data, University of Michigan, License DQW3UK554FJ5. From May 2018, no expiration. Grade: 100%

- Getting and Cleaning Data, Johns Hopkins University, License W73H5EWB93N9. From April 2018, no expiration. Grade 94.1%
- Research Data Management and Sharing, University of North Carolina and the University of Edinburgh, License MVKL6TZ5ZR2N, From April 2018, no expiration. Grade: 97.2%.
- The Data Scientist's Toolbox, Johns Hopkins University, License GU4R7YKBK6Z6. From April 2018, no expiration. Grade: 100%.
- Exploratory Data Analysis, Johns Hopkins University, License JTLKP2BB5Q3N. From May 2018, no expiration. Grade: 97.2%.
- Reproducible Research, Johns Hopkins University, License NG4WWCLZMP7U. From May 2018, no expiration. Grade: 100%.
- Getting Started with Python, University of Michigan, License QW4BSNPGNGVF. From May 23, 2018, no expiration. Grade: 100%.
- Python Data Structures, University of Michigan, License 6ZL4LY28CHDC. From May 25, 2018, no expiration. Grade: 99.2%
- Statistical Inference, Johns Hopkins University. License LMDM8C4JQK6B. From June 12, 2018, no expiration. Grade: 98.3%
- The R Programming Environment, Johns Hopkins University. License 3MMV8ANF489S. From July 21, 2018, no expiration. Grade: 100%
- Advanced Google Analytics, Google Academy. From July 22, 2018 to July 22, 2020.
- Ecommerce Analytics: From Data to Decisions. From July 22, 2018 to July 22, 2020.
- In process:
    - Currently studying under Jeff Leek, PhD, Roger D. Peng, PhD & Brian Caffo, PhD at Johns Hopkins University towards an advanced certificate in Data Science to supplement my statistics graduate work at UVM, which was completed before the development of important new tools
    - Big Data Applications and Hadoop Platform and Application Framework under Natasha Balac, PhD, Paul Rodriguez, PhD, and Andrea Zonca, PhD, at the University of California at San Diego
    - Neurohacking, taught by Elizabeth Sweeney PhD, Rice Academy Postdoctoral Fellow, Ciprian M. Crainiceanu, PhD, Professor of Biostatistics at Johns Hopkins University, and John Muschelli III, PhD, Assistant Scientist of Biostatistics at Johns Hopkins University.

Links

- My "GitHub repo," a repository of coding samples by way of a portfolio
- The website for Anovisions
- LinkedIn Profile

Partial Project List

In addition to this list, we have completed more than 50 studies for various large organizations and medical clients that required confidentiality. The subjects of the studies below were not confidential once they were completed:

- Comparison of GLM and Bayesian models to predict hacking
- Identifying prediabetic people and finding ways to encourage lifestyle changes
- Cleaning public vaccination data for correlation study
- Triggers to change behaviors as a way to prevent illness
- Reliability and validity of online questionnaires
- Student retention rates in two-year respiratory therapy education
- Various factors affecting ambulance response rates in several New England counties
- Effectiveness of grief intervention therapies in children who had lost parents (clinical trial, ethics required single group)
- Teacher training for "Response to Intervention" at a Midwest university
- Effects of distraction on test scores (clinical trial, randomized groups)
- Effects of an intervention on truancy rates
- Reliability and validity of an academic test
- Demographic predictors of teachers' attitudes about retention in previous grade
- Relationship of age and geographic location to African American women's beliefs about heart disease
- The relationship of leadership practices of nursing leaders and patient satisfaction

- Relationship between decline in key export crops and the decline of the economy in Haiti
- Survival study for rare trisomy conditions (non-normal data, transformations required), comparing several different treatments
- The relationship between student satisfaction and mentoring (lots of data, lots of variables)
- Enhanced deployment strategy for role-based hierarchical application agents in wireless sensor networks with established cluster heads
- Study time allocation predicting success or failure
- Core self-evaluation predicting life satisfaction in middle-aged and older adults
- Video game choices related to numerous psychological measures (creativity, aggression, etc.)
- Teachers' perceptions of English language learners: multiple linear regression identifying knowledge, attitudes, and beliefs compared with student scores
- Teachers' success related to principals' leadership styles
- Entrepreneurial self-efficacy by race in Texas
- Frog dissection study (video vs. real-life, clinical trial)
- Toward improved differential diagnostics of pediatric bipolar syndrome (retrospective based on large combined data sets)
- Effects of the Lister-Sink Method of piano learning on injured pianists' abilities to play for extended periods of time
- How much people are willing to pay for locally-grown foods
- The impact of Perkins Act policies on gender equity in career technical education
- Coaching model to improve pedagogical practice
- Integrating music with reading to improve academic learning
- (Singapore) The role of government export promotion programs in firm export performance of small and medium enterprises
- Police officer burnout, causes and possible interventions (exploratory)
- Augmented reality and learning outcomes (clinical trial)
- MOOC student responses
- Study to determine whether a relationship existed between staff nurses' reports of their charge nurse's empowering behavior as measured by the LEB scale and self-reports of burnout, as measured by the Maslach's Burnout Inventory
- University audit by accrediting agency: objective analysis of effectiveness along certain measures
- Unconscious racial bias
- Validity and reliability verification of numerous scales and subscales
- Outcomes for mothers with children with special needs
- Leadership styles, Christian vs. comparison group
- Consumer perception of direct-to-consumer advertising
- Developing a computer language
- Numerous power studies