Edward Zale

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**Overview**

Expert programmer experienced in working with massive and complex integrated claims and patient Rx longitudinal assets.  Expertise in patient bridging, data cleansing, and cohort analysis. Experience in patient matching algorithms, patient centered metrics including loyalty, data visualization, data mining methods and technologies and statistical programming. Performed research studying the relationship between adherence and healthcare utilization as well as calculating risk adjusted adherence rates.

**Education**

Graduated June 2005 **Drexel University**, Philadelphia, PA

B.S. Physics, Magna Cum Laude

Graduated August 2015 **West Chester University**, West Chester, PA

M.S. Applied Statistics

**Skills**

* Experienced in SAS and SQL programming.
* Utilize other mathematical and programming languages such as Python (pandas, sklearn, Jupyter notebooks) as well as C/C++.
* Familiar with Hadoop and Oracle databases as well as Unix operating systems.
* Exposure to R, Matlab, and SPSS.
* Multivariate regression, random forest and decision tress analysis, categorical data analysis, data visualizations (Spotfire).
* Experienced in utilizing Microsoft applications (Excel, Word, and PowerPoint).

**Statistical Experience**

**February 2015 – Present IQVIA, Supplier Services, Collegeville, PA**

**Associate Director of Data Science**

* Oversee 3 statisticians and act as a subject matter expert on a number of client projects involving statistical analyses and machine learning. Train new employees and work with the management team to develop and integrate new process work flows.
* Provide support to upstream longitudinal patient database development and quality control initiatives. Activities include working with the IQVIA core patient matching group on developing and testing enhancements to the tokenized matching algorithm used in production. Developed a scorecard report for suppliers that are transitioning to IQVIA’s new ETL process.
* Collaborated with two professors from the University of Mississippi on adherence risk adjustment. Our work was the foundation for a presentation given at the annual PQA National Conference. Employed hierarchical logistic regression to model patient adherence and used the results to adjust adherence rates based on socio-demographic factors.
* Conducted a study with Drexel University that involved estimating the impact of patient adherence on healthcare utilization (total costs, ER visits, etc.). Random Forest techniques were used to identify the factors influencing PDC adherence and bootstrapped confidence intervals were utilized to determine whether differences in health outcomes were statistically significant.

**September 2014 – December 2014 WCU Dept. of Mathematics, West Chester, PA**

**Graduate Assistant** **-** Provide statistics tutoring for undergraduate and graduate students and assist in homework grading.

**January 2014 – May 2014 WCU Dept. of Communication Studies, West Chester, PA**

**Applied Statistics Internship** - A statistical consultation involving the analysis of categorical and quantitative data. Created a variety of graphics using SAS and Excel as well as performed inferential statistics.

**Other Professional Experience**

**August 2011 – January 2014 Downingtown Area School District, Downingtown, PA**

**Physics teacher -** Explained to students how to statistically analyze experimental data. Created Power Point presentations as well as kept accurate records of student performance.

**August 2010 – August 2011 MaST Community Charter School, Philadelphia, PA**

**Math teacher -** Provided daily instruction for 7th and 8th grade math as well as for high school geometry and personal finance.

**June 2009 – August 2010 Ion Beam Applications, University of Pennsylvania, Philadelphia, PA**

**Physics engineer -** Utilized a variety of statistics and software (Excel, Matlab) to verify that the proton beam was within customer and FDA specifications. Operated the treatment system for calibration and commissioning purposes as well as for patient treatment.

**August 2008 – June 2009 Engility, FAA Technical Center, Atlantic City, NJ**

**Physical Scientist -** Amended the C++ code and made electromechanical modifications related to the interface between the cockpit hardware and the flight simulation software.

**January 2006 – February 2008 Sussex Semiconductor, Fort Myers, FL**

**Process Engineer -** Utilized Excel to display the electrical distribution of die inventory, analyzed yields, and trained new employees. Worked in and wrote SOP’s for the diffusion and testing areas.