Chris Swenson, Data Scientist

chris@cswenson.com | 608-695-9486 | Madison, WI [1]

Major Achievements

Creative, full-stack data scientist using Python, R, SQL, and SAS. Skillful with statistical modeling and automation. Technically adept, always learning.

- Identified forum threads similar to peer-reviewed journal articles and news articles related to a specific topic, using text analytics and clustering in Python and R. Assessed cluster independence with an ANOVA in R.
- Assessed the efficacy of various programs, like a weight management program and an online sales promotion program, using observational data analysis techniques in SAS and R, including logistic regression and propensity score matching, with downstream MANCOVAs to assess efficacy. Assessed health care equity among various groups using similar techniques.
- Extracted, transformed, and loaded (ETL) COVID-19 electronic medical records (EMRs) daily using SQL Server and Python. Developed COVID-19 admissions predictive models in Python, R, and Stan. Reported on predicted and actual data using Power BI. Identified patients at-risk of COVID-19 hospitalization to receive monoclonal antibody treatment. Replicated public COVID-19 data on a personal database in PostgreSQL and used the data to develop a complex analysis of trends in race/ethnicity and the rate of spread for an epidemiological analysis methods course.
- Created multiple algorithms for matching records across different systems or applying complex logic using SQL and SAS. Matched $13 million of credit card transactions to hotel reservations in SQL Server. Identified the primary physicians for patients in an open-network health insurance plan with SAS.
- Automated several processes in SAS, SQL, and Python using various meta-programming techniques. Interviewed users to identify automation points and implemented techniques that improved data quality and downstream analytics.
- Adept with communicating complex analyses to varied audiences, including colleagues, leaders, sales staff, and non-technical people.
  - Surveillance Analysis: https://youtu.be/63szVeJ4lSo
  - Intervention Study Proposal: https://youtu.be/ANmNwamKx_g
  - Power BI Report Demonstration: https://youtu.be/cjVap-5vKsc
  - SAS Global Forum Papers: https://bit.ly/3bcYbdY & https://bit.ly/3EiVLaj

Skills

- Data Transformation (ETL)
- Diverse Data Formats
- Multiple Relational Databases
- Process Automation
- Analytical Reporting
- Inferential Statistics
- Experimental Design
- Observational Analysis
- Predictive Modeling
- Machine Learning
- SQL, Python, R, SAS, Bash
- Power BI, Excel

Education

Pennsylvania State University	Master of Applied Statistics (Python, R, SAS)	**09/2020 – Present**
Enthought	Certificate in Python for Machine Learning	**10/2020**
Stanford University	Certificate in Machine Learning (Octave)	**07/2013**
University of Wisconsin-Whitewater	BS Psychology & Music with Honors	**09/2000 – 05/2005**

Chris Swenson, Data Scientist

chris@cswenson.com | 608-695-9486 | Madison, WI [2]

Professional Experience

Promega, Fitchburg, Wisconsin **03/2021 – Present**

Data Science Product Owner / Data Scientist 3: Statistical modeling and text analytics.

- Modeled monthly sales in a time-series for each product group (SQL, R)
- Assessed sales promotion program with propensity score matching and ANOVA (SQL, R)
- Identified similar text and assessed document cluster independence with an ANOVA (Python, R)

SSM Health, Madison, Wisconsin **09/2017 – 02/2021**

Data Scientist (2020 – 2021): Full-stack analytics for COVID-19 modeling and reporting.

- Predicted COVID-19 admissions using dynamic SIR-based models (Python, R, and Stan)
- Identified at-risk patients for targeted treatments using risk models (SQL, R)

Senior Healthcare Analyst (2017 – 2020): Statistical analyses on EMR & health insurance claims data.

- Demonstrated significant weight loss for participants in the weight management program (SAS)
- Guided leadership on areas of equity concerns, identified with logistic regressions (SAS)

Great Wolf Resorts, Madison, Wisconsin **07/2017 – 09/2017**

Data Analyst Consultant: Consulted with Great Wolf on an analytical project.

- Integrated and analyzed $13 million credit card transactions with reservations (SQL Server)

Aetna, Health Data & Management Solutions, Chicago, Illinois (Remote) **06/2014 – 06/2017**

Senior Lead Informatics Analyst: ETL, report, and analytics developer for a business intelligence tool.

- Decreased time and simplified ETL process for large, external medical claims data sets (SAS)
- Reduced costs for clients by identifying low-value services (SAS)

Healthgrades / Mercury Healthcare, Madison, Wisconsin **05/2012 – 06/2014**

Data Scientist: Analyzed website, call center, and medical encounter activity data.

- Automated market configuration tool based on interviews with users (PostgreSQL, Excel)
- Drove sales by providing sales team with market analytics and projected ROI (SQL, Excel)

UW Health, Madison, Wisconsin **07/2010 – 05/2012**

Programmer Analyst (2011 – 2012): Data architect and EMR ETL developer for research data model.

- Automated and simplified ETL, and improved patient medical home assignment logic (SAS)
- Propelled research on complex medical topics by providing accurate data sets (SAS)

Clinical Data Analyst (2010 – 2011): Analyzed medical record data on patient quality measures.

- Automated pay-for-performance reporting pipeline based on interviews with users (SAS, Excel)
- Salvaged historical quality measure data for data warehousing and reporting (SAS)

Dean Health Plan, Madison, Wisconsin **09/2008 – 07/2010**

Health Care Analyst II: Provided analytical insight on medical claims data.

- Managed HEDIS data ETL project / analyses, coordinating activities with another analyst (SAS)
- Developed a complex algorithm for identifying primary care provider in an open network (SAS)

Renaissance Learning, Madison, Wisconsin **09/2005 – 07/2008**

Researcher: Conducted quasi-experimental research on product use and student achievement.

- Demonstrated efficacy of products in improving achievement on a state standardized test (SPSS)
- Communicated research results to teachers and administrators

This resumé was proudly written on Ubuntu GNU/Linux with LibreOffice using the Linux Biolinum O font.