John M. Snyder
Salt Lake City, UT • john.snyder@imail.org

Education

Bachelor of Arts, mathematics, Grinnell College, Grinnell, Iowa. Graduated May 2005

Master of Science in Statistics, Ohio State University, Columbus, Ohio, Department of Statistics, Graduated June 2010

Computer Science curricula, University of Wisconsin-Madison, Madison, Wisconsin, 2014 - 2015

Employment

Intermountain Healthcare **Salt Lake City, UT**
Statistical Data Analyst, Sr. | Oncology Clinical Program *Nov 2015 - Present*

- Discovered gaps in patient outcomes and tens of thousands of dollars in potential cost savings by leveraging system-wide structured data to identify variation and deviation from best practice.
- Worked with superiors to identify areas of interest; iteratively investigated the relevant data (EHR, registries, SQL databases, etc.) for insights, prepared graphs, tables, reports, and presentations; and delivered them to stakeholders.
- Created a postgreSQL production environment on a redhat linux server for computationally-intensive, long-running tasks, and created ETL pipelines into it.
- Prioritized multiple objectives driven by various work-groups, physician-investigators, and executives.
- Created a convolutional neural network from more than 30 thousand skin lesion images for an initiative to identify skin cancer proactively.
- Evaluated the effectiveness of biometric wearable devices and the data they produced in a high-risk cancer patient population as part of a partnership with a wearables start up.
- Collaborated with physician experts to develop key performance indicators for practitioner rewards and board goals, and developed interactive R Shiny dashboards to display them.
- Applied regression, random forest, and loess models to investigate the association between a more affordable, institutionally developed biomarker and the industry standard for predicting recurrence in breast cancer patients.
- Interacted with physician experts and research-residents to examine the impact of surgeon specialty on patient survival in gastro-intestinal tumors, and quantified the results.
- Gathered data from disparate sources to create a report of market share and financial health.
- Completed the Institute for Healthcare Delivery Research's Advanced Training Program in Healthcare Delivery.
- Served as the chair of the iStats committee, organizing presentations and presenters of statistical models and machine learning; as well as presented topics of deep learning and survival analysis.
- Developed word embeddings from medical documents to identify cancer-specific nomenclature.
- Automated several recurring metrics from query to emailing finalized report combining python, R Markdown, and bash into a single script, and set them to run automatically.
- De-identified data subject to federal regulation and shared it with outside collaborators.
- Aided physician-investigators in data collection, cleaning, analysis, and co-authored more than 20 publications.
- Identified limitations in data systems and reports, and worked across teams of analysts and data architects to find solutions.
- Developed several python objects to represent a pathology report and its metadata.
- Collaborated with vendors to share data, troubleshoot draft reports, and suggest improvements.
- Employed probabilistic record merging to identify patient populations at greater risk of cancer.

University of Wisconsin - Madison **Madison, WI**
Quantitative Data Analyst | Wisconsin Center for Education Research *Aug 2010 – Oct 2015*

- Worked under tight deadlines to produce deliverables for clients in a timely manner.
- Automated the organization of educational, demographic, and associative data from multiple sources into more than 600 distinct datasets suitable for analysis and production.
- Communicated with clients and collaborators to distinguish between statistical and policy

decisions, producing reports elaborating upon the consequences of each.
- Identified statistical issues in a conventional model, collaborated with senior investigators to develop a novel process to address said problem, and implemented the solution in code as a SAS macro.
- Authored automated reports in a production process clarifying data limitations to clients, preemptively identifying data gaps, and decreasing production time two months.
- Collaborated to improve in-house software and algorithms as a member of the Standard Code committee.
- Re-factored the application of business rules and policy decisions–reducing 10,000+ lines of SAS code to 2,000–making them clearer, capable of dynamic updates, and easily communicated to clients.
- Conveyed complex statistical results to collaborators and clients of diverse analytical background.
- Communicated with the Internal Review Board to facilitate grant approval.
- Served as a mentor of junior programmer-analysts, and a statistical and programming resource.
- Reached out to university administration to clarify privacy policies and requirements as part of an initiative to de-identify and preserve data subject to federal regulation.

Ohio State University - Columbus **Columbus, OH**
Teaching Assistant | Department of Statistics *Sept 2008 – June 2010*
- Directed undergraduate students in activities to demonstrate and reinforce statistical concepts.

Gymnasium Nieder-Olm **Nieder-Olm, Germany**
Fremdspracheassistent für Englisch *Sept 2006 – June 2007*
- Aided German English teachers in the instruction of English as well as providing additional expertise outside of class.
- Developed German students' ability and comfort with English as a second language.
- Served as a model of American culture and traditions.

Future School **Dalian, China**
English Teacher *Sept 2005 – April 2006*
- Instructed more than a hundred students in as many as eight classes on the structure and use of English as a second language.
- Developed the comfort and ability in English in several Chinese adults through discussion.

Computer-related Skills

Familiarity and experience with multiple programming languages, office software, platforms, and associated packages/libraries: R, SQL, python, git, bash, SAS, Java; Microsoft Word, Excel, and PowerPoint; Windows, Linux, OSX; dplyr, ggplot2, Shiny, R Markdown, knitr, jupyter, numpy, pandas, scikit-learn, TensorFlow, keras, gensim

Foreign Languages

- English: native speaker
- German: extensive education, formerly fluent
- Spanish: previous education, basic comprehension and speaking ability
- Chinese: basic speaking ability

References

Available upon request