Hope K. Snyder

5007 Betty Jean Way, Columbia, MO 65203
(814) 969-1082 (cell)
hks2010@hotmail.com (personal) | hks7w2@mail.missouri.edu (student)
https://realmagic.netlify.app/ (website)

Objective

Data scientist with 6+ years of experience in psychological data analysis and general data analytics. Co-founder of Code-RLadies (the mid-Missouri chapter of RLadies). Skilled in statistics, problem solving, R programming, and GIT integration. Interest in big data technologies, cloud computing, and database software.

Skills & Abilities

QUANTITATIVE SKILLS

- Probability Theory
- Statistical Theory
- Bayesian Data Analysis
- Item Response Modeling
- Categorical Data Analysis
- Multilevel Modeling
- Multivariate Predictive Modeling
- Multilevel Calculus
- Real Analysis

RESEARCH SKILLS

- Experimental Design and Programming
- Data Analysis
- Data Visualization Tools
- Machine Learning Techniques

SOFTWARE KNOWLEDGE

- R statistical software (Studio, Shiny, Blogdown, and Markdown, Tidyverse)
- GIT and GitHub
- HTML and CSS
- JAGS
- SPSS
- SAS
- LaTeX
- MATLab (Octave)
- AWS EC2 instances (minimal)
- Microsoft Office programs: Word, Excel, PowerPoint

TRADITIONAL SKILLS

- Interpersonal Skills
- Verbal and Written Communication
- Perceptive
- Critical Thinking
- Active Learning
- Time-Management Skills

Education

UNIVERSITY OF MISSOURI | PRESENT | DOCTOR OF PHILOSOPHY IN QUANTITATIVE PSYCHOLOGY

- Advisor: Clintin Davis-Stober, PhD

UNIVERSITY OF MISSOURI | 2018 | MASTER OF ARTS IN PSYCHOLOGY

- Thesis: A Bayesian Investigation into Inhibition Mechanisms of Contrast and Assimilation
- Advisor: Jeffrey N. Rouder, PhD.
- GPA: 3.938

WASHINGTON & JEFFERSON COLLEGE | 2014 | BACHELOR OF ARTS

- Major: Mathematics and Psychology
- GPA: 3.82; Magna Cum Laude, 26th of 307; Beta Scholar
- Honors Societies: Alpha Lambda Delta, Pi Gamma Mu, Pi Mu Epsilon, Psi Chi, Phi Beta Kappa
- Activities: Math Club Treasurer, W&J Chapter of Pi Mu Epsilon Vice President, Wind Ensemble Member

GIRARD HIGH SCHOOL | 2010 | HIGH SCHOOL DIPLOMA

- Honors Course of Study, Third in Class, GPA: 4.13
- Activities: Marching Band, Concert Band, Show Choir, Bell Choir, Theater—Nine productions

Experience

JUNIOR DATA SCIENTIST | CARFAX, INC. | 5/2019 — 8/2019, 1/2020 — 3/2020

- Leverage data science to increase revenue and decrease expenses
- Developed a geospatial web application to visualize fraud and identify new business leads
- Demonstrated business value of cloud computing (e.g. Azure) and data science platforms
- Developed optimized software in R to increase productivity of colleagues
- Communicated complex analyses and results to nontechnical audiences
- Developed prototype machine learning model to analyze customer retention
- Part of model building team for determining customer cost for business team in Canada

TEACHING ASSISTANT | UNIVERSITY OF MISSOURI | 8/2018 — PRESENT

- Worked with students on individual and small group basis to reinforce learning
- Taught SPSS and R statistical software and provided technical support to students
- Mentored advanced students on individual projects

RESEARCH ASSISTANT | UNIVERSITY OF MISSOURI | 8/2016 — PRESENT

- Researched constructs such as perception, attention and decision making
- Implemented Bayesian mathematical models to analyze data
- Programmed experimental trials and stimulus in Octave (MATLab).
- Received funding from University of Missouri Graduate School and Psychology department

ASSISTANT WEBSITE DESIGNER | W.I.S.E. CLAREMONT COLLEGES | 9/2014 — 6/2015

- Transferred materials into new layout within WordPress jointly with a group
- Updated format to improve user experience

- Corrected and updated prior information about statistical measures
- http://wise.cgu.edu

RESEARCH ASSISTANT | KENT STATE UNIVERSITY | 6/2013 — 8/2013

- Researched mathematical polynomial models to predict the maximum value
- Developed a program to estimate multiple predictive models in Java and instructed others through development of the program
- Received funding from Kent State University Mathematics department

RESEARCH ASSISTANT | WASHINGTON & JEFFERSON COLLEGE | 6/2012-8/2012

- Researched mathematical theory behind familiar geometric shapes under different distance measurements
- Received funding from Mathematics Association of America and Washington & Jefferson Mathematics department

Publications

- Davis-Stober, C. P., Snyder, H. K., Park, S., and Regenwetter, M. (2019) Cognitive Aging and Tests of Rationality. DOI

- Snyder, H. K., Rafferty, S. M., Haaf, J. M., & Rouder, J. N. (2019). Common or distinct attention mechanisms for contrast and assimilation? *Attention, Perception, & Psychophysics*, 1-7. GitHub

- Rouder, J. N., Haaf, J. M., & Snyder, H. K. (2019). Minimizing mistakes in psychological science. *Advances in Methods and Practices in Psychological Science*, *2*(1), 3-11. PsyArXiv GitHub

- Haaf, J. M., Rhodes, S., Sun, T. K., Snyder, H. K., Naveh-Benjamin, M., & Rouder, J. (2018). Revisiting the remember-know task: Replications of Gardiner and Java (1990). PsyArXiv

Presentations

- Snyder H. K. (2020) Building a Technical Toolkit: Some Helpful R Packages. Talk presented at the Quantitative Seminar at the University of Missouri, Columbia, MO.

- Snyder, H. K. & Landon, L. (2020). An Introduction to RStudio: How to Navigate and Useful Tips. Talk presented at Code-RLadies February meeting, Columbia, MO.

- Snyder, H. K. & Fitzsimmons, E. (2020). Getting R Installed and Working. Talk presented at Code-RLadies January meeting, Columbia, MO.

- Snyder, H. K. & Engelhardt, C. R. (2019). A Game of Clue: Fraud Detection – An Application to Identify Product Misuse and Business Leads. Talk presented at the Fourth Annual Carfax Tech Summit, Columbia, MO.

- Snyder, H. K. (2019). Binary Decision-Making Process Over Time: Exploring the Diffusion Model. Talk presented at the Quantitative Seminar at the University of Missouri, Columbia, MO

- Snyder, H. K. (2018). A Bayesian Investigation into Inhibition Mechanisms of Contrast and Assimilation. Talk presented at the Fifth Summer School of Computational and Mathematical Modeling of Cognition, Couches, France.

- Snyder, H. K. & Rouder, J. N. (2018). A Bayesian Investigation into Inhibition Mechanisms of Contrast and Assimilation. Poster presented at the Fifth Summer School of Computational and Mathematical Modeling of Cognition, Couches, France.

- Snyder, H. K. (2018). A Bayesian Investigation into Inhibition Mechanisms of Contrast and Assimilation. Talk presented at the Quantitative Seminar at the University of Missouri, Columbia, MO

- Snyder, H. K., Rafferty, S. M., Haaf, J. M., and Rouder, J. N. (2017). Common or distinct attention mechanisms for contrast and assimilation? Poster presented at the Psychonomic Society 58th Annual Meeting, Vancouver, Canada.

- Snyder, H. K. (2017). Finding the Forest Through the Trees: A Bayesian Analysis of Flanker Effects on Perceptions. Talk presented at the Quantitative Seminar at the University of Missouri, Columbia, MO.

- Snyder, H. K. , Klein, D., Cartor, R., Carleton, R. and Tonge, A. (2014). How Low can you go? Estimating the Maximum of a Polynomial. Talk presented at the Joint Mathematics Meeting, Baltimore, MD.

- Snyder, H. K. & Wong, R. (2013). Conics in Extended Taxicab Geometry. Talk presented at the National Conference for Undergraduate Research, La Crosse, WI.

- Snyder, H. K. & Wong, R. (2013). Conics in Extended Taxicab Geometry. Talk presented at the Joint Mathematics Meeting, San Diego, CA.

- Snyder, H. K. (2012). Conics in Taxicab Geometry and Extended Taxicab Geometry. Talk presented at the Mathematics Association of America's Mathfest, Madison, WI.
    - Outstanding Presentation Award

Awards

- Robert S. Daniel Graduate Teaching Fellowship (Since 08/2018). Department of Psychological Sciences, University of Missouri.

- G. Ellsworth Huggins Scholarship (Since 08/2016). 3-year Doctoral Level Fellowship awarded by the Office of Graduate Studies, University of Missouri.

- Graduate Student Travel Grant for attending the Psychonomic Society 58th Annual Meeting (2017). Department of Psychological Sciences, University of Missouri.

- Scholar of Psychology Award (2014). Department of Psychology, Washington & Jefferson College.

- Clyde Shepherd Atchison Scholar Book Award (2014). Department of Mathematics, Washington & Jefferson College.

- Dr. Mariano Garcia '39 Award in Mathematics (2014). Department of Mathematics, Washington & Jefferson College.

- Dr. Mariano Garcia '39 Award in Mathematics (2013). Department of Mathematics, Washington & Jefferson College.

- Howard J. Burnett Presidential Scholarship (2010). Awarded by the Office of Admission, Washington & Jefferson College.

References

DR. JENNY KLINE || PROFESSOR OF MATHEMATICS | WASHINGTON & JEFFERSON COLLEGE

- 724-503-1001, Ext. 6176
- jkline@washjeff.edu

DR. ROMAN WONG || PROFESSOR OF MATHEMATICS | WASHINGTON & JEFFERSON COLLEGE

- 724-503-1001, Ext. 6180
- rwong@washjeff.edu

DR. TIMOTHY KLITZ || PROFESSOR OF PSYCHOLOGY | WASHINGTON & JEFFERSON COLLEGE

- 724-503-1001, Ext. 3357
- tklitz@washjeff.edu

DR. JEFF ROUDER || PROFESSOR OF PSYCHOLOGY | UNIVERSITY OF CALIFORNIA-IRVINE

- jrouder@uci.edu

DR. CLINTIN DAVIS-STOBER || PROFESSOR OF PSYCHOLOGY | UNIVERSITY OF MISSOURI

- stoberc@missouri.edu

DR. CHRIS ENGELHARDT || LEAD DATA SCIENTIST | CARFAX, INC. || CEO | TABASTATS ANALYTICS

- 814-449-7762
- Cre8f9@mail.missouri.edu