Nicole R. Brinkmann Reeves – Data Analyst

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HIGHLIGHTS:

- 20+ years of conducting research using Big Data and data science
- 7+ years conducting data analytics in a business environment using modern data science to lead business research projects, to inform business owners of business impacts, and to guide business decisions
- 20+ publications in peer-review scientific journals
- Self-motivated lifelong learner with a proven track record of continually becoming excellent at new skills via both official certifications/education and self-instruction

TECHNICAL SKILLS:	SMART SKILLS:
SQL, Python, R, D3, QlikSense	Self-motivated lifelong learner
Statistical analysis	Proven written and oral communication skills
Building data models	Meticulous and detail-oriented
Building dashboards	Analytical thinker and problem solver
Effective data visualizations	Creative and innovative thinker
Preparing written/oral reports	Collaborative teammate, independent worker
Communicating data	High ethical standards
vi Editor, LaTex, XML	High standards for professionalism
Microsoft 365	Constant drive to produce the highest quality work

EXPERIENCE AND EDUCATION:

Senior Data Analyst, The Polis Center, Indiana University – Indianapolis, Indianapolis, IN (2024-)
Harvard Business Analytics Program, Harvard University (2024-2025, in progress)
- Three-shield program includes modern data science methods, business courses, and certification. Generative AI, Python, SQL, R, Tableau, AI/ML, Blockchain

D3.js Essentials for Data Science, certification, LinkedIn Learning (2024)
- Data visualization tool for custom, bespoke, dynamic, interactive visualizations

Business Analyst (Data Analyst), American Chemical Society (2017-2024)
- **Lead Data Analyst, Scaling the Scoring**. (2020-2022) Used modern data science methods to conduct data analytics (including ELT – extract, load, transform) on large data sets to measure and report on gap analyses, evaluation analyses, and ongoing quality analyses using AI/ML tools for scaling the quality analysis program.
- **Lead Data Analyst, Level of Effort Classification.** (2020-2021) Designed and conducted a research project for assessing the accuracy of AI/ML tools to enhance production and performance. Used large data sets and modern data science methods to conduct data analytics for evaluating AI/ML tools, production, and performance.

- **Lead Data Analyst, Language Edit Assist**. (2021-2023) Designed and conducted a research project to collect, cleanse, and analyze large data sets for determining the risks and accuracy of using AI/ML to identify and do appropriate steps in the workflow of operations. Used modern data science methods to conduct data analytics for evaluating risk assessments and predicting impacts on production.
- **Lead Data Analyst, Level of Effort Zero.** (2023) Designed and conducted a research project using Big Data and modern data science methods to produce combined predictive metrics on workloads and their impact on production. My data analysis conservatively predicted an estimated 30% savings in turn-around-time and a budget savings equivalent to 20 FTE (50% of the publication production workforce) every year.

University of Notre Dame, Notre Dame, IN – Faculty, Department of Chemistry and Biochemistry and First Year Studies

Radiation Laboratory, University of Notre Dame, Notre Dame, IN – Research Scholar
- Used data analytics on large chemical data sets to build chemical models for research projects, including identification of chemical compositions and reactions of nuclear waste, interstellar systems, and molecular recognition in biological systems.

Hope College, Holland, MI – Camille and Henry Dreyfus Fellow
- Used data analytics on large chemical data sets to develop models for making efficient and accurate predictions of molecular systems and their chemical properties.

Center for Computational Quantum Chemistry, The University of Georgia, Athens, GA – Ph.D. in physical chemistry; advisor: Dr. Henry F. Schaefer; thesis: "Running the Gamut of Ab Initio Methods: Application to Questions of Practical Chemical Interest"

The College of Wooster, Wooster, OH – B.A. in chemical physics, minor in mathematics

PROFESSIONAL ACCOMPLISHMENTS AND ACTIVITIES:

Lead Data Analyst on 4 major production and operations projects at the American Chemical Society

Authored 20+ publications in peer-review journals; **edited** 2000+ peer-review publications for non-native English speakers

Department of Chemistry and Biochemistry and First Year Studies, University of Notre Dame: Undergraduate Studies and Advising Committee, Search Committee for Special Professional Faculty in Organic Chemistry, Retention Committee, Fresh Ideas Working Group

REPRESENTATIVE PUBLICATIONS – FULL LIST AVAILABLE UPON REQUEST:

Cantrell, William A., **N.R. Brinkmann**, M.M. Dawley, and S. Ptasińska, "A DFT Investigation of the Anions and Neutrals Resulting from the Electron Attachment to Thymine," University of Notre Dame Undergraduate Research Symposium, 2015.

Dawley, M.M., K. Tanzer, W.A. Cantrell, P. Plattner, **N.R. Brinkmann**, P. Scheier, S. Denfil, S. Ptasińska, "Electron Ionization of the Nucleobases Adenine and Hypoxanthine Near the Threshold: A Combined Experimental and Theoretical Study," *Phys. Chem. Chem. Phys.* **16**, 25039, (2014).

Davisson, J.L, **N.R. Brinkmann**, W.F. Polik, "Accurate and Efficient Calculation of Excited Vibrational States from Quartic Potential Energy Surfaces," *Molecular Physics*, **110**, 2587, (2012).

Mahoney, J.M., K.A. Stucker, H. Jiang, I. Carmichael, **N.R. Brinkmann**, A.M. Beatty, B.C. Noll, and B.D. Smith, "Molecular Recognition of Trigonal Oxyanions Using a Ditopic Salt Receptor: Evidence for Aniostropic Shielding Surface around Nitrate Anion," *J. Am. Chem. Soc*. **127**, 2922 (2005).

Professional references available upon request.