

Dylan Pieper

Data Scientist

Profile

I build data products and tools for researchers and organizations to ensure that projects succeed. I translate human needs into technical solutions, mainly using R and modern database infrastructure. I have a knack for co-creating products with collaborative teams to help diverse communities thrive.

Personal Information

He/Him
Madison, Wisconsin
dylanpieper@gmail.com
<https://dylanpieper.github.io/>

Core Competencies

Management

Cross-Functional Collaboration,
User Support & Feedback,
Technical Communication,
Product Strategy &
Roadmap Planning

Development

R, Python, Quarto, Shiny,
Tableau, SPSS, JASP,
Package and API Development

Infrastructure

SQL (MySQL, PostgreSQL, DuckDB),
REDCap, Git, GitHub, Sentry,
Docker, Azure, Linux (RHEL)

Experience

Data Scientist - School of Pharmacy, University of Pittsburgh, Pittsburgh, PA

Sep 2021 - Present

- Lead data strategy and technical roadmap development for evidence-based health and justice reform projects across cross-functional teams including researchers, healthcare providers, public servants, and IT departments
- Co-manage team of 3-5 data staff, including recruitment, professional development, and technical mentorship to deliver on product objectives
- Design and build data integration products connecting 250+ treatment centers through scalable pipeline architecture, REDCap, and automated ETL workflows using R and DuckDB
- Architect and maintain SQL databases that integrate project data with entity relationships and operational and geographic data
- Develop and deploy user-facing data products including automated reports, web applications, and dashboards for healthcare providers and researchers, managing full product lifecycle from requirements to production deployment
- Conduct research and evaluation for quality improvement through mixed-method studies, including statistical modeling, psychometric evaluation, key informant interviews, and partner feedback to inform product decisions and ensure project success
- Drive product adoption and knowledge sharing through peer-reviewed publications and technical documentation to expand product reach across partnerships and research communities

Field Interviewer - NORC at the University of Chicago, Chippewa Falls, Wisconsin

Aug 2021 - Nov 2021

- Conducted structured interviews with research participants across diverse geographic locations, building rapport and ensuring high-quality data collection using standardized survey instruments and protocols
- Managed project coordination and logistics including scheduling, travel planning, and participant communication to ensure successful data collection across assigned geographic areas
- Maintained strict data governance and research ethics standards, ensuring confidentiality and security protocols throughout the participant interactions

Experience

Research Specialist - Michele Gelfand's Culture Lab, University of Maryland, College Park, MD

Aug 2020 - Aug 2021

- Analyzed and published data on COVID-19 deaths across 57 countries and their relationship to social norms using multilevel statistical models
- Ran two experiments testing different nudges, or message framing effects, for wearing masks and forecasted the utility of these interventions
- Developed a natural language processing (NLP) Shiny app to detect threatening language and compare levels across texts (<https://www.michelegelfand.com/threat-dictionary>)

Writing Coach - University of Northern Iowa, Cedar Falls, IA

Aug 2017 - May 2020

- Coached students in writing and statistics, providing personalized guidance based on individual needs assessment to improve academic performance across diverse learning styles
- Trained new tutors and developed training materials to ensure consistent, effective tutoring practices and knowledge transfer across the team
- Conducted outreach in classrooms and registration events to promote tutoring services and connect students with academic support resources
- Applied evidence-based pedagogical frameworks including Bloom's taxonomy and Csikszentmihalyi's flow state model to optimize student learning experiences
- Supported diverse student populations including English Language Learners and students with learning disabilities, adapting approaches to meet varied accessibility needs

Education

Master of Arts - Social Psychology - University of Northern Iowa, Cedar Falls, Iowa

2018 - 2020

- Completed courses Statistical Computing I and II in R programming
- Worked as a Research Assistant in the Psychoneuroendocrinology Lab
- Worked as a Teaching Assistant in undergraduate psychology courses (Introduction to Psychology, Biopsychology, and Psychology of Gender)
- Awarded research and travel funds from the university totaling \$1,800
- Thesis: "Challenging Social Systems Under the Threat of Pollution" (<https://scholarworks.uni.edu/etd/1028/>)

Bachelor of Arts - Psychology - University of Northern Iowa, Cedar Falls, Iowa

2014 - 2018

Publications

- Gelfand, M. J., Jackson, J. C., Pan, X., Nau, D., **Pieper, D.**, Denison, E., Dagher, M., Van Lange, P. A. M., Chiu C., & Wang, M. (2021). The relationship between cultural tightness-looseness and COVID-19 cases and deaths: A global analysis. *The Lancet: Planetary Health*. [https://doi.org/10.1016/S2542-5196\(20\)30301-6](https://doi.org/10.1016/S2542-5196(20)30301-6)
- Gelfand, M. J., Li, R., Stamkou, E., Denison, E., Fernandez, J., Choi, V., Chatmen, J., Jackson, J. C., **Pieper, D.**, & Dimant, E. (2021). Persuading conservatives and liberals to comply with mask-wearing: An intervention tournament. *Journal of Experimental Social Psychology*. <https://doi.org/10.1016%2Fj.jesp.2022.104299>
- Dimant, E., Clemente, E. G., **Pieper, D.**, & Azevedo, F. (2022). Politicizing mask-wearing: Predicting the success of behavioral interventions among Republicans and Democrats in the U.S. *Scientific Reports*, 12, 7575. <https://doi.org/10.1038/s41598-022-10524-1>
- **Pieper, D.** (2020). Challenging social systems under the threat of pollution: Replication and extension of Eadeh and Chang (2019) [Master's Thesis, University of Northern Iowa]. UNI ScholarWorks. <https://scholarworks.uni.edu/etd/1028>

Presentations

- **Pieper, D.** (2025, September). Scaling up LLM chats using ellmer. *posit::conf*. (Upcoming talk).
- **Pieper, D.** (2025, June). redquack: An R package for memory efficient REDCap-to-DuckDB workflows. *R/Medicine*. <https://r-consortium.org/posts/redquack-an-r-package-for-memory-efficient-redcap-to-duckdb-workflows>
- Katie, W. & **Pieper, D.** (2024, June). The Pennsylvania medications for opioid use disorder (PA MOUD) technical assistance and quality improvement expansion project. *Rural Health Information Hub*. (Online resource). <https://www.ruralhealthinfo.org/project-examples/1139>
- **Pieper, D.**, Gelfand, M. J., & Denison, E., (2021, February). COVID-19: Meta-norms to wear masks and social distance in the U.S. *Society for Personality and Social Psychology*. (Remote poster session). <https://osf.io/y8cug>
- **Pieper, D.**, Hirano, H., & Harton, H. C. (2020, April). The effect of environmental threats and terrorism/violent-crime threats on political orientation and attitudes. *Midwestern Psychological Association Conference*. Chicago, Illinois. (Conference canceled) ... Also (2020) at the *University of Northern Iowa's College of Social and Behavioral Sciences Conference*. Cedar Falls, Iowa. (Conference canceled). <https://osf.io/3n7r8>

Presentations

- **Pieper, D.** (2020, February). Challenging the system under the threat of pollution: Low system justification mediates a liberal political shift. *Society for Personality and Social Psychology*. New Orleans, LA. (Poster session) ... Also (2020) at the *University of Northern Iowa's College of Social and Behavioral Sciences Conference*. Cedar Falls, Iowa. (Conference canceled). <https://osf.io/v7nez>
- **Pieper, D.** (2019, April). What's in a name? Measuring the potential influence of medical cannabis labels on attitudes toward its use. *Iowa Psychological Association Conference*, Des Moines, Iowa. (Poster session) ... Also (2019, April) at the *University of Northern Iowa's College of Social and Behavioral Sciences (CSBS) Conference*. Cedar Falls, Iowa. Awarded Best Oral Presentation (2nd place, \$250). <https://scholarworks.uni.edu/agss/2019/all/18>
- **Pieper, D., DeSoto, C., & Hitlan, R.** (2018, April). The relations between personality and source of dietary protein. *Midwestern Psychological Association Conference*. Chicago, Illinois. (Poster session) ... Also (2017, April) at the *University of Northern Iowa's College of Social and Behavioral Sciences Conference*. Cedar Falls, Iowa.

R Packages

- **redquack**: Transfer REDCap data to a database and use in R without exceeding available memory (<https://dylanpieper.github.io/redquack/>)
- **chatalot**: Process a lot of large language model chats using ellmer (<https://dylanpieper.github.io/chatalot/>)
- **samesies**: Compare lists of texts, factors, or numerical values to measure their similarity (<https://dylanpieper.github.io/samesies/>)