Dylan Pieper

Profile

I am a data scientist who integrates full-stack programming with cultural and behavioral insights to address social issues. I develop tools ranging from descriptive analytics and statistical models to web applications. R is my primary language, though I am comfortable with Python and others. I collaborate with cross-functional teams to build human-centered solutions that balance social impact with scalable architecture. My curiosity inspires me to explore emerging technologies like large language models and contribute to open-source communities.

Experience

Senior Data Scientist - Program Evaluation and Research Unit (PERU), University of Pittsburgh, Pittsburgh, PA

Sep 2021 - Present

- Contribute data science solutions to grant-funded projects ($4M+) focusing on substance use treatment, public health, and criminal justice
- Design and implement standardized data pipelines integrating data from 250+ healthcare facilities
- Build data infrastructure in a relational database, integrating health records, public surveillance data, and project operations data
- Run advanced statistical models for reports and research manuscripts, including mixed-effect regression models and survival analyses
- Develop data science dashboards and web applications for healthcare providers and project teams on university servers
- Automate reusable and reproducible workflows for generating clinical insights and reporting program evaluation metrics
- Collaborate with healthcare providers, researchers, and IT teams to implement data science architecture
- Support staff recruitment, management, training, and mentorship
- Author reports, technical documentation, and research manuscripts

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

Aug 2021 - Nov 2021

- Conducted in-person interviews with research participants, recording responses using standardized survey instruments and protocols
- Traveled to various locations within an assigned geographic area to complete interviews, managing my schedule while meeting individuals for data collection
- Maintained confidentiality of all participant information and adhered to strict research ethics and data security procedures

Personal Information

Madison, Wisconsin
dylanpieper@gmail.com
https://dylanpieper.github.io/

Professional Skills

Data Science Core
R, R Markdown, Quarto, Shiny

Database Architecture
MySQL, PostgreSQL, DuckDB

Data Engineering & DevOps
GitHub, Docker, APIs, Azure, Linux

Large Language Models
Claude, Claude Code, OpenAI, Ollama

Research & Evaluation Tools
Tableau, Qualtrics, REDCap

Front-End Development
React, Bootstrap, Observable, SurveyJS

Transferable Skills
Statistical Modeling, Object-Oriented Programming, Functional Programming, Package Development

Experience

Research Specialist - 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 forecasting the utility of these nudges
- 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 (CRLA certified) and statistics, providing personalized guidance to meet their needs and improve their academic performance
- Supported English Language Learners (ELLs) in improving their writing skills and language proficiency
- Coached students from diverse and non-traditional backgrounds, including students with learning disabilities
- Trained new tutors and designed comprehensive training materials to ensure effective tutoring practices
- Delivered lectures on academic integrity, plagiarism prevention, and essay writing
- Conducted outreach initiatives in classrooms and at student registration events to promote tutoring services and academic resources

Education

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

2018 - 2020

- Thesis: "Challenging Social Systems Under the Threat of Pollution" (https://scholarworks.uni.edu/etd/1028/)
- Worked as a Research Assistant for the Psychoneuroendocrinology Lab and Teaching Assistant for undergraduate psychology courses
- Awarded research and travel funds from the university totaling $1,800

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

2014 - 2018

Publications

- **Pieper, D. J.**, McNeill, J. M., Chirdon, C. R., Moore, D. W., Wang, E.-H., Raby, S., & Cloutier, R. M. (in preparation). Racial disparities in Pennsylvania's criminal justice system: Analyzing prosecutorial and judicial decision-making.
- 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
- 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) (Publication No. 1028) [Master's thesis, University of Northern Iowa]. *UNI ScholarWorks*. https://scholarworks.uni.edu/etd/1028