Dylan Pieper

Profile

I am a data scientist who combines technical expertise with interpersonal skills to address societal challenges. My work focuses on developing impactful tools ranging from descriptive analytics and predictive models to web applications. I primarily use R but am also familiar with Python and other languages. I collaborate closely with cross-functional teams and partners to develop solutions that balance computational robustness with social impact. My curiosity inspires my exploration of emerging technologies like large language models and my contributions to open-source communities.

Experience

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

Sep 2021 - Present

- Contribute technical 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 sites
- Build data infrastructure that integrates data in a relational database, including 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 technical solutions
- 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
Git, Docker, Azure, RHEL

Research & Evaluation Tools
Tableau, Qualtrics, REDCap

Front-End Development
React, Bootstrap, Observable, SurveyJS

Transferable Skills
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 an experiment on mask-wearing testing different message framing

• 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 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