

Nick Hemauer

www.nickhemauer.com | linkedin.com/nick-hemauer | github.com/nhemauer

SUMMARY

Published PhD candidate and creative with a strong background in computational social science, machine learning, deep learning, natural language processing, and social network analysis. Skilled in R, Python, PyTorch, Scikit-Learn, and SQL. Excellent and proven research, learning, communication, and collaboration abilities. Seeking a role to conceptualize, develop, and implement cutting-edge research and software focused on AI and network solutions.

TECHNICAL SKILLS

Programming Languages: R, Python, SQL, Stata, JS/CSS/HTML

Deep Learning Frameworks: PyTorch, TensorFlow, Keras

Tools & Libraries: Oracle Cloud (OCI), Git, Docker, Kubernetes, Linux, Scikit-Learn, Pandas, NumPy

Research Methods: Network Analysis, Text Analysis, Survey Design, Causal Inference

EDUCATION

Ph.D. Political Science and Social Data Analytics

Penn State

• Taken CompSci classes on deep learning, machine learning, and data mining

State College, PA

Aug 2024 – Exp. May 2026

M.A. Political Science

Penn State

State College, PA

Aug 2022 – Aug 2024

B.A. Political Science and Global Studies; Minor in History

University of Minnesota

Twin Cities, MN

Aug 2020 – May 2022

ACADEMIC PUBLICATIONS

Tai, Patni, Hemauer, Desmarais, and Lin 2025

GenAI vs. Human Fact-Checkers: Accurate Ratings, Flawed Rationales

ACM Conference on Web Science

Hemauer & Warner 2025

Analyzing Public Support for School-Based Mental Health Services

Journal of Health Politics, Policy and Law

Hemauer

The Diffusion of State Firearm Regulations

Received R&R

Hemauer

The Legislative Impact of Mass Shootings: Evidence from State Roll Call Votes

In Progress

Hemauer, Saunders, and Desmarais

Assessing the Predictive Performance of Policy Diffusion Models

In Progress

RESEARCH EXPERIENCE

Predoctoral Fellow

Center for Social Data Analytics

Sep 2025 – May 2026

State College, PA

- Year-long fellowship provided by the Center for Social Data Analytics
- Provides full funding and significant research opportunities with faculty
- Advised by Dr. Bruce Desmarais

Research Assistant and Data Analyst

Penn State

Sep 2024 – May 2025

State College, PA

- Conducted research on police brutality
- Compiled several datasets to uncover data insights
- Advised by Dr. Cyanne Loyle

Polling Manager
Mood of the Nation

Jul 2023 – Aug 2024
State College, PA

- Developed and deployed natural language models to automate data processing
- Achieved a 0.75 Jaccard index score on a new 13-class multi-membership open response survey dataset
- Collaborated with directors and managed undergraduate assistants

Academic Journal Editorial Assistant
Public Opinion Quarterly

Aug 2022 – Aug 2023
State College, PA

- POQ is a top journal in the study of public opinion
- Ensured submitted manuscripts followed AAPOR guidelines
- Ensured a consistent and on-time workflow among editors

ACADEMIC PRESENTATIONS

2025 ACM Web Science Conference

Rutgers University

AWARDS

Predoctoral Fellowship - Center for Social Data Analytics

April 2025

Summer Graduate Research Award

April 2025

Center for American Political Responsiveness Graduate Scholarship

August 2022

PROJECTS

Machine Learning Publication/Summer Research Award
Machine Learning

April 2025 – Present
Research/Writing, Python

- Manuscript Title: "Assessing the Predictive Performance of Policy Diffusion Models"
- Lead-author in conjunction with Dr. Bruce Desmarais and Dr. Tracee Saunders
- GitHub: github.com/nhemauer/Pred-Diffusion

Oracle/SQL Web App
Full-Stack Software Development

April 2025 – Present
OCI, Backend, SQL, JS/CSS/HTML

- Built a virtual cloud network, hosted a website, and deployed and populated a MySQL database
- Working towards a state policy Web app

Full PyTorch RoBERTa Implementation
Natural Language Processing

July 2025
Python, PyTorch, Hugging Face

- Achieved a Jaccard index of 0.75 and 70% exact accuracy on a new 13-class multi-membership open response survey dataset
- GitHub: github.com/nhemauer/RoBERTa-Classifer

LEGO Object Detection
Computer Vision

July 2025
Python, PyTorch, Hugging Face

- Implemented an object detection model to detect LEGO pieces from a synthetic dataset
- GitHub: github.com/nhemauer/LEGO-Vision

REFERENCES

Dr. Bruce Desmarais
bdesmarais@psu.edu ; (814)-863-1595

Penn State