

# Nick Hemauer

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

## SUMMARY

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

## TECHNICAL SKILLS

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

**Deep Learning Frameworks:** PyTorch, TensorFlow, Keras

**Tools & Libraries:** Oracle Cloud, Git, Kubernetes, Docker, Linux, Scikit-learn, Pandas, NumPy

## PROJECTS

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### Network Science Publication/Summer Research Award

*Network Science and Machine Learning*

April 2025 – Present  
*Research/Writing, R, Python*

- Manuscript Title: "Assessing the Predictive Performance of Policy Diffusion Models"
- Lead-author in conjunction with Dr. Bruce Desmarais and Dr. Tracee Saunders
- An article of my dissertation

### Oracle/SQL Web App

*Full-Stack Software Development*

April 2025 – Present  
*Oracle Cloud Infrastructure, IT Admin, 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
- Data utilized in my dissertation

### "From Scratch" PyTorch RoBERTa Implementation

*Natural Language Processing*

June 2024 – July 2024  
*Python, PyTorch, Hugging Face*

- Defined and wrote functions to create RoBERTa
- Implemented several other LLM classification models: DeBERTa, LLama3, and NLI
- Achieved 88% accuracy on a new 13-class multi-membership open response survey dataset

## EXPERIENCE

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### 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
- 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, achieving 88% accuracy 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*

- 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

Aug 2022 – Aug 2023

State College, PA

**EDUCATION**

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**Penn State**

*Ph.D. in Political Science and Social Data Analytics*

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

State College, PA

Aug 2024 – Exp. May 2027

**Penn State**

*M.A. in Political Science*

State College, PA

Aug 2022 – Aug 2024

**University of Minnesota**

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

Twin Cities, MN

Aug 2020 – May 2022

**ACADEMIC PUBLICATIONS**

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**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*

*Sent for Publication*

**Hemauer**

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

*Full Draft*

**Hemauer, Saunders, and Desmarais**

*Assessing the Predictive Performance of Policy Diffusion Models*

*In Progress*

**ACADEMIC PRESENTATIONS**

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**May 2025 ACM Conference on Web Science**

Rutgers University

**AWARDS**

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**Summer Graduate Research Award**

April 2025

**Predocutorial Fellowship - Center for Social Data Analytics**

April 2025

**REFERENCES**

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**Dr. Bruce Desmarais**

*bdesmarais@psu.edu*

Penn State