

Samuel Shaw, PhD

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Portfolio: <https://sammyshaw.github.io/> * Github: <https://github.com/SammyShaw> * LinkedIn: </in/samuel-shaw-sammy-shaw/>

SUMMARY

Data analyst and researcher with strengths in statistical modeling, data engineering, and evidence-based explanation. Combines technical expertise with years of teaching experience to make complex analyses understandable to diverse audiences. Comfortable guiding teams through findings, fostering shared understanding, and supporting continuous improvement.

SKILLS

Python (pandas, NumPy, scikit-learn, TensorFlow, matplotlib) | R | SQL | Tableau | Data Visualization and Dashboarding | Statistical Modeling | PCA | Machine Learning | Research Design & Data Collection | Survey Research | Ethnography | Public Speaking | Team Leadership | Writing

DATA PROJECTS (selected)

GSS Social Health Dashboard (*Tableau, Python*)

- Built an interactive dashboard visualizing 50 years of GSS data, enabling multi-decade, social trend analysis for policy, research, and public communication.
- Engineered and validated multiple composite index measures (social health, confidence in institutions, social attitudes) using PCA, scaling, and reliability analyses.

Toy Robot Image Classification (*MobileNetV2, TensorFlow*)

- Designed and collected a 725-image custom dataset to model real-world image variation for robotic recognition of children's toys.
- Built a *CNN* and applied transfer learning to achieve 100% test-set accuracy, demonstrating applicability for automated object-sorting applications.

Fantasy Basketball Player Ranking Algorithm (*Python*)

- Designed a full ETL analytics pipeline and ranking system incorporating PCA, advanced feature engineering, and custom (SHAW) weighting schemes to optimize player value for category leagues.
- Dramatically outperformed traditional ranking metrics in multiple performance comparisons across all seasons tested.

EXPERIENCE

Eastside Preparatory School – *Social Science Faculty*

2020 – 2024

- Designed and delivered curriculum emphasizing data literacy, analytical reasoning, and critical thinking, preparing students for an AI-driven world.
- Created 400+ instructional resources incorporating data visualization, evidence-based writing, and storytelling with data.
- Managed academic advising and communications for 50+ students, streamlining workflows and supporting individualized learning plans.
- Served as Chess Coach, applying strategy, pattern recognition, and resilience training to support competitive student teams.

Seattle Waldorf School – Social Science Faculty

2019 – 2020

- Developed and facilitated **project-based, interdisciplinary coursework** rooted in historical inquiry, social theory, and experiential learning.
- Increased student engagement by integrating outdoor exploration, data, and real-world problem solving during the Covid pandemic.

Vanderbilt University – Lecturer / Researcher

2006 – 2017

- Conducted original sociological research on **housing, race, and urban development**, contributing to **4 peer-reviewed publications** and multiple conference presentations.
- Led mixed-methods research projects involving survey data, interviews, and statistical modeling, producing insights that informed local housing policy discussions.
- Designed and taught university-level courses in housing policy, race relations, and American culture.

The Aspen Institute – Consultant Researcher / Data & Policy Analyst

2016

- Produced a quantitative impact analysis supporting federal legislation (Senate Bill) with implications for **400+ artist-endowed charitable foundations** across the U.S.
- Delivered strategic recommendations by synthesizing stakeholder interviews, economic modeling, and policy scenarios to guide foundation planning and advocacy.

SELECT PUBLICATIONS

Shaw, Samuel. 2015 “Art Crawls: Locating Artists and Audiences in the Creative City,” in *Ethnography*.

Shaw, Samuel. 2012. “Spontaneous and Planned Arts Development: Notes from Portland.” In *The Politics of Urban Cultural Policy*. New York: Routledge.

Shaw, Samuel, and Daniel Sullivan. 2011. “White Night: Gentrification, Racial Exclusion, and Perceptions and Participation in the Arts.” In *City & Community*.

Sullivan, Daniel, and Samuel Shaw. 2011. “Gentrification and the Retail Sector,” in *Urban Affairs Review*.

Dissertation: 2014: *Off-Center – Art Careers in Peripheral Places*.

EDUCATION

PhD (Sociology) - Vanderbilt University

MA – Portland State University

BA – University of Oregon