RYAN STEED

5000 Forbes Ave., Pittsbugh P.A., 15213

ryansteed@cmu.edu • rbsteed.com

EDUCATION

Carnegie Mellon University   August 2020 - Present
Ph.D., Information Systems and Management

George Washington University   August 2017 - May 2020
B.S. Computational Economics, *summa cum laude*   GPA 3.98
Minor in Philosophy

RESEARCH EXPERIENCE

George Washington University   September 2018 - September 2020
Research Assistant, Department of Computer Science

- Under Dr. Aylin Caliskan, motivated, designed, and conducted experiments to study embedded social biases in state-of-the-art face recognition and unsupervised image classification models.

- Under Dr. Rahul Simha, modeled knowledge transmission in patent citation networks and estimated the effect of policy on innovation over time.

Duke University   May 2017 - January 2018
Research Assistant & Lead Modeler, Social Science Research Institute

- Contributed to the design and training of a deep learning model to classify political actions reported in the news; presented at ISA academic conference.

- Coordinated development of social network analysis algorithms & random graph models for political simulations; presented work to intelligence officers at the Pentagon, leading to grant renewal.

University of North Carolina   August 2016 - May 2017
Research Affiliate, Department of Political Science

- Collaborated with Dr. Timothy McKeown to scrape and curate a foreign policy digital archive for the department.

PROFESSIONAL EXPERIENCE

GW Innovation Center   September 2017 - May 2020
Virtual Jane Project Manager & Technology Fellow

- Co-founded George Washington University's first Innovation Center and student-run maker space.

- Serve as product owner and scrum master for mobile virtual reality educational app for the Jane Goodall Institute; hosted Dr. Jane Goodall for motion capture scan and collaborative design.

- Recruited and managed for a team of 10 student animators, developers, and content creators; fundraised over $10,000 for VR equipment and stipends.

Capital One   June 2019 - August 2019
Data Engineering Intern

- Designed and tested novel cluster sampling algorithm for active learning in analyst-in-the-loop cybersecurity models.

Magic Number   May 2018 - August 2018
Machine Learning Engineer

- Researched, tested, and implemented machine learning classification and clustering models to categorize patent documents into packaged sectors for clients.

- Designed virtual machine microservice stack to schedule machine learning training and execution, manage model hyperparameters, and serve machine learning predictions.

PUBLICATIONS

- **Steed, R.**, Williams, B., "Heuristic-based weak learning for automated decision-making," in *Workshop on Participatory Machine Learning at the 2020 International Conference on Machine Learning*, 2020.

- **Steed, R.**, Caliskan, A., "Machines learn appearance bias in face recognition," submitted, 2020.

- **Steed, R.**, "Evolution of innovation in patent citation networks," poster presented at GW Research Days, 2019.

- Erdemandi, M., Augustine, R., Zhao, L., **Steed, R.**, "Expansion of automated event coding for better international security analysis," in *International Studies Association South*, 2017.

- Rivera, W. A., Rogers, A., **Steed, R.**, "The practice and promise of open source intelligence and computational security studies," in *International Studies Association South*, 2017.

FELLOWSHIPS & GRANTS

Social Good Fellowship   September 2017 - May 2020
GW Innovation Center

Data MASTER Fellowship   May 2018 - May 2019
GW Mathematics And Statistics Training, Education, and Research Program

Sigelman Undergraduate Research Enhancement Award   October 2018, 2019
George Washington University

HONORS & AWARDS

- Phi Sigma Tau, *2020*

- Presidential Scholarship with Honors, George Washington University, *May 2017 - May 2020*

- 2nd Prize, Politics & Economics, GW Research Showcase Poster Competition, *April 2019*

SERVICE

SolveForGood   June 2020 - September 2020
Volunteer Data Scientist

- With an international team of volunteers, contributed to an algorithmic transparency tool for the Assessor's Office in Cook County, Chicago.

PRESENTATIONS

- "Machine Learning Document Classification," *GW ACM*, November 2018.

- "The Practice and Promise of Open Source Intelligence and Computational Security Studies," *International Studies Association South*, Orlando, 2017.