

RYAN STEED

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EDUCATION

George Washington University
B.S. Computational Economics
Minor in Philosophy

August 2017 - May 2020
GPA: 3.98

RESEARCH EXPERIENCE

George Washington University
Research Assistant, Department of Computer Science

September 2018 - Present

- Research fairness, accountability, and transparency in machine learning under Dr. Aylin Caliskan and the evolution of innovation under Rahul Simha.
- Motivated, designed, and conducted experiments to detect first-impression emotional bias in state-of-the-art deep learning models for face recognition.
- Investigated graph-theoretic models of knowledge transmission in patent citation networks.

Duke University
Research Assistant & Lead Modeler, Social Science Research Institute

May 2017 - January 2018

- Oversaw model design and computational development of game-theoretic decision-making software for intelligence analysts, and presented at ISA academic conference.
- Coordinated the development of social network analysis algorithms & random graph models for link prediction between actors; presented work to intelligence community members at the Pentagon.

University of North Carolina
Research Affiliate, Department of Political Science

August 2016 - May 2017

- Collaborated with Dr. Timothy McKeown to parse and analyze foreign policy web archives.
- Constructed Python web crawler to scrape and standardize digital documents from several sources.

PROFESSIONAL EXPERIENCE

Capital One
Data Engineering Intern

June 2019 - August 2019

- Designed and tested novel cluster sampling algorithm for active learning in analyst-in-the-loop cybersecurity models.
- Leveraged natural language processing tools to write automated query rules for 13 new cyber threat alerts.

GW Innovation Center
Virtual Jane Project Manager & Technology Fellow

September 2017 - Present

- Co-founded George Washington University's first maker space for student innovation.
- Serve as product owner and scrum master for the Virtual Jane project, a mobile virtual reality educational app for the Jane Goodall Institute modeled in Maya and developed in Unity.
- Hosted Dr. Jane Goodall at GWU for a motion capture scan and creative pitch.
- Recruited, organized, and fundraised over \$10,000 for a team of student animators, developers, and content creators.

Magic Number

May 2018 - August 2018

Machine Learning Engineer

- Researched, designed and tested machine learning classification and clustering models to categorize patent documents into packaged sectors for clients.
- Implemented virtual machine microservice stack to schedule machine learning training and execution, manage model hyperparameters, and serve machine learning predictions.

PUBLICATIONS

- 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.
- **Steed, R.**, “Evolution of innovation in patent citation networks,” Poster presented at GW Research Days, 2019.
- **Steed, R.**, “AI is Heideggerian enough, but can it be authentic?” Manuscript, 2019.
- **Steed, R.**, Rivera, W. A., “The derivative relational attribute graph model for link prediction,” Manuscript, 2017.

FELLOWSHIPS & GRANTS

Social Good Fellowship

September 2017 - Present

GW Innovation Center

Data MASTER Fellowship

May 2017 - May 2019

GW Mathematics And Statistics Training, Education, and Research Program

Sigelman Undergraduate Research Enhancement Award

October 2018, 2019

George Washington University

HONORS & AWARDS

- Dean’s List, George Washington University, *2017-18 & 2018-19*
- Presidential Scholarship with Honors, George Washington University, *May 2017 - Present*
- Outstanding Academic Achievement Award, George Washington University, *May 2019*
- 2nd Prize, Politics & Economics, GW Research Days Poster Competition, *April 2019*
- Strasser Writing Prize, GW Honors Program, *January 2018*
- National Merit Scholarship, *May 2017*

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.

SKILLS

- Python, Java, Scala, C, JavaScript, R, HTML5/CSS/jQuery, PHP; Mongo, PostgreSQL; Debian, Ubuntu; Pandas, Keras, Tensorflow, Scikit-Learn, PySpark
- Project Management, Public Speaking, Design Thinking, Agile/Scrum, REST API, Github, Slack