

# RYAN STEED

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## EDUCATION

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**George Washington University**

B.S. Computational Economics

Minor in Philosophy

August 2017 - May 2020

GPA: 3.98

## RESEARCH EXPERIENCE

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**George Washington University**

*Research Assistant, Department of Computer Science*

September 2018 - Present

- Research fairness and bias in machine learning and the evolution of scientific innovation.
- Under Dr. Aylin Caliskan, motivated, designed, and conducted experiments to detect first-impression emotional bias in state-of-the-art deep learning models for face recognition.
- Under Dr. Rahul Simha, modeled knowledge transmission in patent citation networks and estimated the effect of research policy on innovation over time.

**Duke University**

*Research Assistant & Lead Modeler, Social Science Research Institute*

May 2017 - January 2018

- 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 relationships between political actors; presented work to intelligence officers 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

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**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

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- 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

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### **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

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- 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

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- “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

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- 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