Samsara Counts

Curriculum Vitae

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Education

2019 B.Sc. George Washington University Computer Science and Mathematics

Research Experience

George Washington University | *Research Assistant* | Fall 2017-Present

- Use deep learning to recognize images of Eating Disorders and build tools to improve patient health outcomes.
- Use notions of geometric and combinatorial diversity to improve classifier test and training accuracy.

Microsoft Research | *Intern* | Summer 2018

- Used group theory to speed up matrix multiplication algorithms
- Solved an optimization problem over the search space of finite groups.
- Implemented and designed abstract algebraic algorithms in GAP.

University of Maryland College Park | *Researcher* | Summer 2017

- Designed a multi-armed bandit algorithm to ensure diversity and fairness in an automated admissions process
- Analyzed past admissions data to investigate the possibility of bias in previous decisions
- Designed a system using deep Reinforcement Learning to choose matching policies for dynamic kidney exchange
- Worked with John P. Dickerson at the Combinatorics and Algorithms for Real Problems R.E.U. (7% acceptance rate)

GW Learning Technologies Research Group | *Researcher* | August 2016 - December 2017

- Use Natural Language Processing to generate reading comprehension questions from input passages
- Develop a mobile application and website using Play framework for adult learners to increase English literacy
- Adapt and improve reading comprehension question-generation algorithm in Java
- Identify high-quality datasets for training natural language processing algorithms and cleaned datasets using Python and R

Honors and awards

2018	Google Lime Scholarship	*Google*
2018	TOMODACHI Kakehashi Inouye Scholar	*TOMODACHI Initiative, US-Japan Council*
2018	NCWIT Collegiate Award, Honorable Mention	*Natl. Center for Women in Information Technology*
2018	Susan Shin Memorial Award	*GW School of Engineering and Applied Science*
2018	Quip Diversity in Tech Scholarship, Runner Up	*Quip*
2018	Academy of American Poets Poetry Contest, Honorable Mention	*GW English Department*
2017	Anita Borg Institute Grace Hopper Conference Scholar	*AnitaB.org*
2016	Summer Undergraduate Program in Engineering Research Fellowship	*GW School of Engineering and Applied Science*
2016	1st Place, Citizen Day Poetry Contest	*GW English Department*

Grants

2018 GW Undergraduate Research Award. “Multimodal Detection of Deviant Content Online". $5000
Funding from the GW Office of the Vice President of Research.

2018 GW Data MASTER Fellowship. “Recognizing Images of Eating Disorders with Deep Learning". $3000
Funding from the National Science Foundation.

2017 HackHarassment Grant. “A Research-based Hackathon to Combat Online Harassment". $2000
Funding from Intel and the Born This Way Foundation.

Publications

Workshop papers

1. Counts, S. N., J.-L. Manning, and R. Pless (2018). Characterizing the Visual Social Media Environment of Eating Disorders. In: *Applied Imagery Pattern Recognition Workshop (AIPR)*. Washington, DC. October 2018.

Invited talks

- *The Diverse Cohort Selection Problem*, GW Chapter of the Association for Computing Machinery, Washington, February 2018.
- *Recognizing Images of eating disorders with deep learning*, GW Dean's Council of Women in Technology, Washington, January 2018.

Poster Presentations

- *Recognizing Images of Eating Disorders in Social Media*, GW Research Days, Washington, April 2018. **2nd Place for Best Engineering Poster**
- *Recognizing Images of Eating Disorders in Social Media*, GW SEAS R&D Showcase, Washington, February 2018. **Finalist for Best Undergraduate Poster (Theoretical)**
- *The Diverse Cohort Selection Problem*, GW SEAS R&D Showcase, Washington, February 2018. **Finalist for Best Undergraduate Poster (Theoretical)**

Teaching

2018	Introduction to Software Development	*Teaching Assistant*	George Washington University
2018	Discrete Structures II	*Learning Assistant*	George Washington University
2017	Introduction to Computer Science	*Learning Assistant*	George Washington University
2017	Algorithms and Data Structures	*Learning Assistant*	George Washington University
2016	Introduction to Computer Science	*Learning Assistant*	George Washington University
2015	8th Grade Chemistry	*Teaching Fellow*	Breakthrough Collaborative

Programming & Technology

- Languages: Python, Java, C, MATLAB, LaTeX, HTML, CSS, SQL, GAP, Bash
- Software: Mathematica, Git, PyTorch, Django
- Spoken Languages: Spanish (fluent), English (native)

Involvement and Service

2016-Present	Vice President	GW Association for Computing Machinery
2016-Present	Mentor	SEAS Student Peer Advisory Network
2017-2018	Founder and Chair	GW Dean's Council of Women in Technology
2015-2016	Freshman Representative	The Association of Queer Women and Allies