

Samsara Counts

(e) samsaranc@gmail.com (p) 817-994-9732 (w) samsaranc.github.io

EDUCATION – The George Washington University

Bachelor of Science in Computer Science and Mathematics with minors in Creative Writing and Logic, May 2019

Cumulative GPA: 3.5, Computer Science GPA: 3.6

RESEARCH EXPERIENCE

Artificial Intelligence Research, *University of Maryland College Park*, May 2017–Present

- Selected as one of 10 researchers funded by the National Science Foundation from over 190 applications at the Combinatorics and Algorithms for Real Problems (CAAR) REU, advised by Dr. John P. Dickerson
- Design and implement a system using deep reinforcement learning to choose optimal matching policies for dynamic kidney donor-pair exchange
- Find and improve a graph embedding function to process directed, weighted graphs into fixed-sized vectors for input into a neural network which is invariant under graph isomorphism
- Develop a system using reinforcement learning to ensure diversity and fairness in an automated admissions process
- Design and execute statistical analysis on past admissions data to investigate the possibility of bias in previous decisions

Online Harassment Research, *George Washington University*, November 2016–Present

- Develop a classifier that robustly detects different forms of online harassment from multimodal data
- Conduct a survey studying the prevalence of online harassment at GW, funded by \$2,000 HackHarassment Grant
- Analyze survey results to refine the definition of online harassment and design a tool to combat online harassment
- Statistically analyze survey data to investigate the likelihood of harassment among varying undergraduate groups
- Organize Hackital, a 500-person hackathon to engage the community in making tech solutions to mitigate online harassment

Natural Language Processing Research, *GW Learning Technologies Research Group*, May 2016–May 2017

- Used Google N-grams and word occurrences to generate reading comprehension questions from input passages
- Developed a mobile application and website using Play framework for adult learners to increase English literacy
- Identified high-quality datasets for training natural language processing algorithms and cleaned datasets using Python

CONFERENCE PAPERS

1. Schumann, C, **SN Counts**, JS Foster, and JP Dickerson (2017). The Diverse Cohort Selection Problem: Multi-Armed Bandits with Varied Pulls. *Under review*.

AWARDS & GRANTS – HackHarassment Grant, sponsored by Intel and the Born This Way Foundation, 2017

Anita Borg Institute Grace Hopper Celebration Student Scholarship, 2017

Computer Science Research Fellowship, GW Summer Undergraduate Program in Engineering Research, 2016

Citizen Day Poetry Contest Winner, GW English Department, 2016

TECHNICAL SKILLS – Languages: Python, C, Java, R, SQL, LaTeX, HTML, CSS, JQuery, JavaScript, Scala

Software: Mathematica, Git, nltk, MATLAB, SAS, VAN, DBVisualizer, GIS, Play Framework

Spoken Languages: Spanish (fluent), English (native)

WORK EXPERIENCE

George Washington University Dept. of Computer Science – Learning Assistant, *Fall 2016–Present*, Washington DC

- Assist professors with in-class exercises for Algorithms and Data Structures (S '17) and Intro. to Computer Science (F'16,'17)
- Host office hours to assist students with course material and create thorough review sessions to prepare students for exams

Breakthrough Collaborative – 8th Grade Chemistry Teaching Fellow, *Summer 2015*, Texas

- Selected from over 100 applications for a teaching residency program that helps high-achieving, underrepresented students
- Authored and taught Chemistry curriculum, achieving 328% student growth in post-assessment scores
- Facilitated a daily film club for students and wrote unique college-level curriculum and lesson plans

The Wendy Davis For Governor Campaign Headquarters – Data Intern, *Fall 2014*, Texas

- Used SQL, VAN, and Excel to produce specialized lists of targeted voters for canvassing and communication
- Assisted with acquisition, processing, and analysis of voter data during early vote and GOTV

LEADERSHIP – President, now Academic Affairs Chair, GW Association for Computing Machinery, August 2016–Present

Freshman Representative, The Association of Queer Women and Allies, August 2015–May 2016

Mentor, School of Engineering and Applied Science Student Peer Advisory Network, April 2016–Present