

Rachael M. Harris

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EDUCATION

Carnegie Mellon University, Heinz College
MS Information Security Policy and Management

May 2024
QPA: 3.38 / 4.33

Allegheny College
BS Computer Science, Minors in Political Science and Philosophy

May 2023
GPA: 3.73 / 4.00

SKILLS

Languages : Python (w/ framework Django), Java, R, HTML, CSS, JS

Tools : SQL (Postgres, mySQL), Git, Version Control, Docker, TravisCI

EXPERIENCE

Goldman Sachs
Cybersecurity Analyst - Engineering Division

June 2023 – August 2023
New York City, NY

Carnegie Mellon University
Security Fellow

June 2022 – August 2022
Pittsburgh, PA

- Led a team of five students to conduct innovative research through the United States Strategic Command. Efforts contributed to leading cutting-edge analysis on U.S. deterrence from traditional nuclear warfare and cyberattacks.
- Analyzed, presented, and published the findings, specifically on cyberattacks on Nuclear Command, Control, and Communication (NC3) systems and its effects on the reliability of the system regarding strategic deterrence. Composed recommendations to mitigate the introduction of doubt from our findings on NC3 vulnerabilities.

Bipartisan Policy Center
Research and Technology Intern

September 2021 – April 2022
Remote (Washington, D.C.)

- Published two research briefs; the first on the future of XR and the second relating to AI policies in the U.S. and E.U. to address fairness, inclusion, regulation, and privacy. These briefs present key issues to policymakers on the hill.
- Spearheaded an original research project to analyze the core differences between Artificial Intelligence Ethics Frameworks, Risk Assessments, and Impact Assessments by performing text-based analyses (such as sentiment and keyword analysis) which resulted in a partnering with AINow to further and publish the research.
- Developed innovative sentiment analysis and text-based analysis tools for use on international legislation, which is currently being funded by Google as an addition to congress.gov's "Summary" feature.

Prudential Financial
Software Engineer & Data Analytics Intern

June 2021 – August 2021
Remote (Newark, NJ)

- Wrote queries to analyze department data in five MongoDB collections to calculate vendor and package turnaround times, leading to a 33% increase in the number of routine checks on the efficiency of benefits package delivery.
- Visualized the aggregated data with Tableau, allowing 25 managers to have access to recurring automated reviews.
- Implemented sentiment analysis using Python and AWS (Lambda, Comprehend, Kinesis Firehouse, DynamoDB, and Elastic Search), allowing public relations officers to detect changes in public opinion after large business decisions.

Mozilla @ Allegheny College
Ethical Technical Leader

September 2020 – December 2020
Meadville, PA

- Collaborated with Dr. Janyl Jumadinova under Mozilla's Ethics in Computer Science initiative to create a sorting and labeling bot to determine how far false information spreads over social media at a critical time in communication.
- Trained an AI, using scikit-learn and a prepared data set, to detect disinformation and misinformation in tweets and to generate a validity and truthfulness score based on the amount of false information contained within the text.
- Leveraged Twitter's API to extract data from tweets, namely text, username, verification status, and location, allowing users to search for tweets using hashtag, keyword, and username.

PUBLICATIONS

- *Considerations and Recommendations for Voting Equipment*, Heinz College Academic Journal, 2022
- *Impact of Cyberattacks on Functionality of NC3 Systems & Strategic Deterrence*, Carnegie Mellon University, 2022
- *Artificial Intelligence Policy and the European Union*, Bipartisan Policy Center, 2022
- *5G Explainer*, BiPartisan Policy Center, 2022
- *Thinking Ahead About XR*, BiPartisan Policy Center, 2022

Awards

- WiCyS (Women in Cybersecurity) **Student Scholarship**, 2022
- Association for Computing Machinery **Upsilon Pi Epsilon Scholarship**, 2022
- Distinguished Alden Scholar (**High Dean's List**), 2021-2022
- Alden Scholar (**Dean's List**), 2019-2020, 2020-2021