

RESEARCH

- Harshit Mishra and Sucheta Soundarajan. [BalancedQR: A framework for balanced query recommendation](#). In Proceedings at [ECML/PKDD 2023](#)
- Harshit Mishra and Sucheta Soundarajan. [Keyword Recommendation for Fair Search](#). In Proceedings at [Bias 2022](#) workshop at 44th European Conference on Information Retrieval, ECIR '22. Springer, 2022
- Harshit Mishra, Namrata Madan Nerli, Sucheta Soundarajan. [Keyword Recommendation for Fair Search](#). In the IJCAI 2021 Workshop on AI for Social Good.
- Harshit Mishra. [Reducing Word Embedding Bias](#). At an AI for Social Good, Harvard, CRCS Workshop 2020.

EMPLOYMENT

Research Assistant	Syracuse University	August 2024 - Present
<ul style="list-style-type: none">• Development of algorithms to reduce biases present in online spaces.• Implementing query reformulation strategies to mitigate harm caused by algorithms.		
Software Engineer	MicroStrategy	June 2021 – August 2024
<ul style="list-style-type: none">• Developing a ML-LLM product to analyze time series data and provide interesting observations to end users.• Developed ML and deep learning models to provide anomaly detection and trend insights based on user data.• Resolved UI related defects and added new features using React, Redux and ElectronJS.• Upgraded node modules for a desktop app to make MicroStrategy App secure and reliable.		
Research Intern	Syracuse University	June 2020-Jan 2021
<ul style="list-style-type: none">• Presented a novel method to reduce bias present in search engine results.• Implemented seed word clustering using auto encoders and a probabilistic model using GMM to cluster twitter posts based on content.• Presented a novel method to reduce bias in word embeddings using variational auto encoders.		
System Engineer	TCS	December 2016 - August 2018
Nightly Build Checks (Back-end Developer; JavaScript, Python)		
<ul style="list-style-type: none">• Predicted delivery dates for SAP systems with an accuracy of 84% using a regression model.• Coordinated development of JavaScript dashboard and python scripts with 3 team members.		
Employee Induction Process (Front-end Developer; JavaScript, Python, SAPUI5, HTML/CSS)		
<ul style="list-style-type: none">• Built an application in JavaScript to automate employee onboarding and offboarding process.• Reduced human error percentage by 18% and total time taken for internal processes by 75%.		
Trained 5 new members of internal automation team as a User Interface Developer and Contract User for SAP.		

EDUCATION

Syracuse, NY	Syracuse University	August 2024 - Present
<ul style="list-style-type: none">• PhD candidate.• Coursework: Reinforcement learning, Automated reasoning and theorem proving.		
Syracuse, NY	Syracuse University	August 2018 – May 2020
<ul style="list-style-type: none">• M.S. in Computer and Information Science, May 2020.• Graduate Coursework: Design & Analysis of Algorithms; Ethics in Machine Learning; Structural Programming & Formal Methods; Machine Intelligence & Deep Learning; Object oriented programming.		
Indore, India	Shri Vaishnav Institute of Technology & Science	July 2012 – June 2016
<ul style="list-style-type: none">• B.E. in Computer Science and Engineering, June 2016.• Undergraduate Coursework: Analysis & Design of Algorithms; Software Engineering. & Project Management; Web Engineering; Data Structures; Object Oriented Design; Distributed Programming.		

TECHNICAL EXPERIENCE

Projects

- **FairKR** (2021). Deployed a dashboard to prove efficiency of an algorithm using aws EC2 instance to deploy a flask server for REST APIs with UI developed in React. Used to survey 40 aws mechanical turk workers. Python, ML, Flask, AWS EC2, React JS.
- **Debiasing Word Embeddings** (2020). Removed gender bias by 3% in word embeddings using variational autoencoders and adaptive sampling. Python, ML, PyTorch, Deep Learning, Variational Autoencoders.
- **Twitter EchoChambers** (2018). Validated presence of echo chambers on Twitter by showing similar and dissimilar networks of twitter followers for democratic and republican leaders.

DISTINCTIONS AND AWARDS

- **Veracode**: Earned a Veracode Leve 2 certification as part of of my quarterly goals at MicroStrategy.
- **KCNA**: Earned a KCNA: Kubernetes and Cloud Native Associate certification as part of my quarterly goals at MicroStrategy.
- **Hackathon**: Co-winner a company-wide hackathon.

LANGUAGES and TECHNOLOGIES

- JavaScript; Python; HTML5; SAPUI5; NodeJS; ReactJS; C++; SQL; HANA; Git; REST APIs; AWS; Data Structures; ML; AI.
 - Pandas; Numpy; scikit-learn; keras; pytorch; tensorflow; clustering; semi and unsupervised learning.
-