Warsaw, Poland
https://www.linkedin.com/in/harshit-mishra1793/

HARSHIT MISHRA

571-395-3169
harsh.dsdh@gmail.com

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

Software Engineer **MicroStrategy** **June 2021 – Present**

- 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**

- 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)

- 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)

• 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 2018 – May 2020**

- 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**

- 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.
- **TCS Gems:** Earned an appreciation award from the manager for delivering a high-quality tool (employee induction process) 3 days before deadline.

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.