Harsh Mishra

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SUMMARY

Computer Science graduate student with 2 years of Industry experience as a Systems and Software Engineer at Hewlett Packard Enterprise. Passion revolves around Data Engineering and the application of Machine learning algorithms. Experienced in automating infrastructure and deployment using CI/CD.

EDUCATION

University of Illinois at Chicago (UIC) - *Master of Science in Computer Science;* Chicago, IL; August 2021 - May 2023 (Expected); GPA: 3.85/4.0

People's Education Society University, (PESU) - *Bachelor of Technology in Computer Science and Engineering;* Bangalore, India; August 2015 - May 2019; GPA: 8.08/10.0

PROGRAMMING SKILLS

Proficient: Python, C , R, Ansible, SQL
Familiar: Scala, Java, PowerShell, Matlab, Javascript, D3js
Application/Software: Tableau, Amazon Web Services, Docker

LABORATORY WORK

Computer Science Department, UIC September 2021 – December 2022, *Research Assistant*

· Trained Score based Generative Models using non-Gaussian noise. Pre-print of the research paper available on arxiv.

• Researched on enhancing Information propagation and node labeling in Graph Neural Networks, when being applied on Event-stream data.

WORK EXPERIENCE

Hewlett Packard Enterprise (HPE) - *Systems and Software Engineer;* Bangalore, India; July 2019 – July 2021

• Developed scripts to automate the deployment of MLOps as a Service offering and gained experience in using APIs, porting PowerShell scripts to Python and using Ansible for deployment.

• Modeled Cyber threat patterns using Graph Databases and algorithms and Involved in writing SQL queries using the Neo4j software.

INTERNSHIP EXPERIENCE

Hewlett Packard Enterprise (HPE) - *Software Engineering Intern;* Bangalore, India; January 2019 – July 2019,

• Deployed a DataOps pipeline using open source applications and developed bash scripts to automate the CI/CD pipeline.

Green Swift Measurement - Bangalore, India Aug. 2017 – May 2018.

• Found methods to calculate and optimize the power consumption based on disk-based operations using neural networks, under the Cloud Computing Big Data (CCBD) team at PES University and in partnership with Intel.

ACADEMIC/SIDE PROJECTS

Streaming Pipeline - Built an end to end Log Analysis Pipeline. Hadoop Spark was used to crunch the log data, the results were streamed using kafka. D3.js was then used to dynamically visualize the streamed results. (Scala)

Image Recognition - Implemented a Neural Architecture Search (RL-NAS) to find the best combination of filters which aid recognition of CIFAR-10 images. The filters used included various Computer Vision defined filters like Harris Corner Detection, blurring etc. using OpenCV. (Python - PyTorch)

Abstractive Summarization - Developed a fully automated setup, which extracts tweets for a given keyword, in a given time period, and produces a concise summary along with the tweet sentiments. Google's T5 model was Fine Tuned for

the Abstractive Summarization task. (Python)

Causal Inference - Developed a causal analysis pipeline to identify factors that influenced public sentiment during the COVID-19 pandemic. The work included using algorithms to find causal graphs and then utilizing Bayesian Networks to find the conditional probabilities. (Python)

EXTRA CURRICULARS

· Coach in the Football for Social Change initiative from Tottenham Hotspur Foundation. Aug. ‘15 - Jan ‘20.

· Football Analytics articles for spursmishra.wordpress.com, Football Chronicle, Chance Analytics and SpursStatMan.com.

· Volunteer for the Rise Against Hunger Campaign, as part of HPE’s Global Day of Service.