Nihar Dwivedi

Senior Site Reliability Engineer

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Engineer specializing in the design and implementation of scalable high-performance distributed systems.

WORK EXPERIENCE

SECURONIX, INC. **Dallas, TX**

Senior Site Reliability Engineer Apr 2023 - Present

- Lead team of 30 plus engineers of varying seniority levels to support ingestion process for 300 plus customers
- Responsible for managing problem lifecycle for the ingestion service ranging from code bugs to problems in the underlying cloud infrastructure
- Led cost optimization efforts to trim excess TCO of the underlying AWS cloud via a variety of optimizations from Spark job configurations to hosted services capacity review

Software Engineer, Ingestion Apr 2022 - Mar 2023

- Shipped Java code to implement new features and fix bugs uncovered in production
- Suggested architectural improvements and refactored code to improve efficiency and handle higher volume of data

Cloud Security Engineer, Cloud Engineering June 2021 - Apr 2022

- Solved and documented ingestion issues and incidents for a complex distributed cloud product
- Gained experience working with Redis, Kafka, Spark, HDFS, HBase, Solr, MySQL.

RED HAT, INC. **Boston, MA**

Student Developer Jan 2020 - May 2020

- Implemented novel ML model for a containerized metric alert application on the Mass Open Cloud.
- Leveraged OpenShift container platform to deploy Grafana and Prometheus-based app.
- Developed and deployed LSTM model on JupyterHub using Python, obtained accurate predictions of chosen cloud metrics, comparable to Prophet model by Meta.
- Pull request merged into main Red Hat project repository after code review.

DELOITTE FINANCIAL ADVISORY SERVICES LLP (OFFICES OF THE US) **Hyderabad, India**

Software Engineer (Intern), Risk and Financial Advisory Jan 2019 - May 2019

- Shipped backend PowerShell and SQL code improving accuracy of widely used internal system audit tool.
- Shipped JavaScript and C# code to implement new features for web-based frontend.
- Maintained and extended user documentation.
- Extended audit coverage of tool to one new OS, added new features, and improved usability.

EDUCATION

BOSTON UNIVERSITY

M.S. Electrical and Computer Engineering Sep 2019 - Jan 2021

- Relevant Coursework: Cloud Computing, Parallel Algorithms, Advanced Data Structures, Deep Learning

PROJECTS

IMAGE CAPTIONING

Course Project at BU EC523 Deep Learning Oct 2020 - Dec 2020

- Explored state-of-the-art deep learning models for Image Captioning - generating a descriptive caption for an image.
- Implemented Transformer model and compared performance with other widely-used captioning models.
- Tested and trained model on the Coco 2014 dataset.
- Led training and performance testing of the Transformer model, comparison with reference Resnet and VGG models, achieved near state-of-the-art results with model tuning.

LANGUAGE CORRECTION

Course Project at BU EC504 - Advanced Data Structures Jan 2020 - April 2020

- Project to generate correctness scores for user-given sentences in a language.
- Scraped English text from Wikipedia and built a language model from word associations.
- Built GUI and Backend using Java, wrote parallel algorithms for efficient scraping and crawling.

ADDITIONAL

- **Skills:** Cross-Platform Development, Infrastructure Engineering
- **Languages:** Java, Python, Go
- **Tools and Frameworks:** AWS, Shell Scripting, SQL, Redis, Kafka, HDFS