Aman Kedia

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WORK EXPERIENCE

Birla Institute of Technology and Science [Apr 2019 – Present]

Guest Faculty, Data Science and Engineering

Taking live sessions on Data Mining and webinars on Artificial Intelligence for 200+ M. Tech students part of BITS' Work Integrated Learning Program.

Oracle [Jul 2018 – Present]

Senior Member of Technical Staff

- Working for **Oracle Digital Assistant (ODA)** team building Machine Learning and Data Pipelining solutions.
- Developed Entity Detection models for extracting Date, Time, Duration, Set and Email entities from Chabot utterances.
- Studied Google BERT architecture and worked on POCs for recognizing Person, Location and Organization in utterances using Transfer Learning from BERT. Achieved 99.1% accuracy on modified CONLL 2003 dataset.
- Designed and Established Kafka architecture and Scale out capabilities for ODA message pipeline on Oracle Cloud Infrastructure. It handles as high as 75 Mbps producer throughput in a multi-producer setup.
- Developed Kubernetes Cluster monitoring capabilities for Kafka, Elasticsearch and Zookeeper.

SAP [Aug 2016 – May 2018]

Scholar

- Worked for **SAP Resume Matching** team building Machine Learning solutions for simplifying the Recruitment process.
- Researched and developed Machine Learning and Deep Learning models for ranking resumes based on job descriptions.
- Improved the accuracy of the baseline by more than 10% by reading on the latest research on Text Mining, incorporating Embedding's from Word2Vec, enhancing Pre-processing techniques and adding relevant data.
- Developed RESTful services from scratch for a building a Machine Learning Model Evaluation engine which enabled users to compare and evaluate the performance of multiple Machine Learning models on data of users' choice.

Indian Space Research Organisation [Dec 2015 – Mar 2016]

Research Intern

- Worked on the project **Data Mining on Weekly Public Health Data of Dehradun district** under Prof. Shiva Reddy Koti.
- Obtained clusters of regions demonstrating similar occurrence patterns for 15 diseases in the district of Dehradun, India.
- Identified diseases outbreaks & contributing regions along with their visualizations using geo-coded Maps.

EDUCATION

Birla Institute of Technology and Science, Pilani [Aug 2016 – May 2018]
M. Tech in Software Engineering GPA: 9.65/10

Institute of Engineering & Management (West Bengal University of Technology) [2012-2016]
B. Tech in Computer Science and Engineering GPA: 9.22/10

RESEARCH PROJECTS

Neural Networks for 3D Image Classification: A special case of Alzheimer's Detection

Developed 3-D Residual and Inception Architecture based Neural Networks for Alzheimer's Classification using MRI scans.

Data Mining Techniques in Indian Healthcare: A short review *(IEEE- MAMI, 2015)*

Studied 61 research papers to analyze the data science research performed in Healthcare with special focus on India.

Empirical Study to Evaluate the Performance of Classification Algorithms on Healthcare Datasets *(WJCAT, 2017)*

Compared the performance of 5 Machine Learning Algorithms on 13 Datasets based on Accuracy, Precision, Recall and F-Score.

Application of Twitter in Healthcare sector of India *(IEEE-RAIT,, 2016)*

Mined 15000+ tweets to identify trends in disease patterns and study the impact of Mission Indradhanush based on Twitter data.

Filter Based Feature Selection Methods using Hill Climbing Approach *(NCUL, Springer)*

Studied Hill Climbing for Feature Selection, obtained 1.7% better accuracy across 20 datasets compared to Genetic Algorithm.

SKILLS

- Machine Learning, Natural Language Processing, Deep Learning, Python, Java (moderate proficiency).
- Experience with Kafka, Micro-service Architecture, Distributed Systems, Kubernetes, Docker, Git and Flask.