SHIVIKA K BISEN

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EDUCATION

University of Michigan **Ann Arbor, MI**
Master of Science in Data Science (GPA: 3.69/4.00) *January 2019 – December 2020*
Coursework: Applied ML, Info Visualization, Statistical learning, Database Systems, Data Mining, Info Retrieval, Agile Software Tools

VIT University **Vellore, India**
Bachelor of Technology Biomedical Engineering (GPA: 3.98/4.00) *July 2009 – August 2013*

WORK EXPERIENCE

PAXAFE **Indianapolis, IN**
Data Scientist *May 2021 – Present*
- **End-to-end ML**: Developed model for client application, predicted supply chain events for J&J, 100+GB data > data analysis > model development > MySQL database > AWS integration & testing > to **production** as an API using Flask & Docker
- Automated data pipelines for ML model retraining using from AWS S3 to AWS RedShift with 1TB+ of data
- Insights/Dashboard: Built cloud-based data visualizations tool from large dataset using Superset & SQL, Tableau

iCatalysts **San Francisco, CA**
Data Science Developer *July 2020 – April 2021*
- Created prototype to demo value of deep learning algorithms like GPT3, transformers model in text classification
- Analytics: Contributed to development of D3.js code for California Energy Commission (CEC) insights/visualization web app
- Enhanced product's user experience by testing new features, reporting bugs, debugging & troubleshooting in Python and Git

University of Michigan (Microsoft funded, data4good) **Ann Arbor, MI**
Data Scientist, Researcher *May 2020 – April 2021*
- **End-to-end NLP search engine**: Developed for United Nations reports with 0.87 MAP (better than Google for UN queries)
- Deployment: Data scraping > extracted text from PDF > summarized text with BERT > deployed BM-25 ranking on Flask

University of Michigan (Google.org funded, FII project) **Ann Arbor, MI**
Machine Learning Researcher *January 2020 – November 2020*
- **ML/DL NLP classifier**: Developed for user's posts in social network site UpTogether using logistic regression (F1 score 82)
- Mentored by Prof. David Jurgen. Performed feature engineering using GloVe, topic modeling, RoBERTa Transformers

PROJECT EXPERIENCE

- Sentiment analysis on autonomous cars, NLP (Python, sklearn, NLTK, Data Mining) UMich. *GitHub*
- Advanced data visualization on complex large dataset Demo | Database systems (MySQL) *GitHub*

PUBLICATION AND CONFERENCES

- Chetah search engine for United Nation reports *Poster* , Data for Public Good Symposium, 2021| WiDS Conference 2022
- Deep learning-CNN based image similarity & recommendation in visual search (Tensorflow, Python, CV) *Poster*
- Bisen, S. (2013). An improved segmentation technique based on delaunay triangulations for breast infiltration/tumor detection from mammograms. International Journal of Engineering and Technology, 5(3), 2565-2574
- Technical content creation (Medium author): *Topic Modeling* | *Stanford coreNLP* | *Interactive Insights*

SKILLS

Python, JavaScript, R, HTML, SQL, Pandas, NumPy, SciPy, Statsmodels, Scikit-learn, TensorFlow, Keras, Pytorch, NLTK, CoreNLP, Matplotlib, NetworkX, gensim, D3.js, Django, Flask, Matlab, AWS, Hadoop/Spark, Jupyter, Tableau, Jira, MS Excel

ACHIEVEMENTS AND LEADERSHIP

- **UMich LSAMP Scholarship** STEM Scholar 2020. Led as Data Science Coordinator for UMich, MIDAS
- Kaggle competition: **Top rank 2/70** in UMich 2020 (**ML Search** algorithm for COVID queries)