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) *August 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*
- Built **e2e analytics tool** with **data visualizations** using Superset Dashboard & SQL queries to turn **large datasets** into **insights**
- Worked on data modeling for IoT/sensor data, performed **data analysis** for **rare events** in transportation using **geospatial data**
- Developed **ML** model for production as an API for J&J, using MySQL, Flask & Docker. Evaluated model's testing results
- Developed scalable **data pipelines** for automating workflow from AWS S3 to AWS RedShift for analytics tools

iCatalysts **San Francisco, CA**
Data Science Developer *July 2020 – April 2021*
- Developed D3.js algorithm for network analyzer app using **geospatial data** for California Energy Commission (CEC)
- Experimented & tested deep learning algorithms like RoBERTa, GPT3. Implemented sentiment analysis
- Assisted with software engineering processes, prototyping, debugging & troubleshooting

University of Michigan (Microsoft funded Data4Good project) **Ann Arbor, MI**
Data Scientist, Researcher *May 2020 – April 2021*
- Deployed Search Engine for UN agencies pdfs using BM-25 ranking with MAP- 0.78 (better than Bing/Google for UN queries)
- Extracted information from unstructured data (PDF), transformed it to structured data. Summarized text using BERT

University of Michigan (Google.org funded FII project) **Ann Arbor, MI**
Machine Learning Researcher *January 2020 – November 2020*
- Developed ML classifier using logistic regression to predict user behavior in social network site UpTogether (F1 score 82)
- Mentored by NLP expert Prof. David Jurgen. Performed feature engineering using CoreNLP, GloVe & LIME

PROJECT EXPERIENCE

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

PUBLICATION AND CONFERENCES

- Data for Public Good Symposium 2021, UMich- Chetah: Fast and Intelligent search engine *Poster* | WiDS Conference 2022
- UMSI Exposition, DL-based visual search & recommendation using **AWS Sagemaker** (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
- Medium author for: *Topic Modeling* | *Stanford coreNLP* | *Interactive Data Visualizations*

SKILLS

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

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)