SHIVIKA K BISEN

Data Scientist

shivikakbisen@gmail.com | sbisen@umich.edu | 248-229-6074 | Troy, MI | sbisen
shivika-k-bisen | Portfolio Website

EDUCATION

M.S. in Data Science

University of Michigan, Ann Arbor

January 2019 – December 2020 | Ann Arbor, Michigan

GPA: 3.69/4

Coursework: Applied Machine Learning, Regression Statistical Analysis, Database Systems, Advanced Data Mining, Information Visualization, Models of Operation Research, Time Series Analysis, Agile Software Development and Project Management, Information Retrieval

B.Tech. in Biomedical Engineering

VIT University, Vellore

July 2009 – August 2013 | Vellore, India

GPA: 3.98/4

EXPERIENCE

Data Science Developer

iCatalysts

July 2020 – Present | San Francisco, California

- Worked with NetworkX, D3.js Neo4j, Flask. Developed APIs for advanced data visualization.
- Implemented natural language processing using algorithms like Vader sentiment, Textblob for sentiment analysis and worked with GPT3.
- **Accomplishment**: Three new product development for company to get data insight using GIS pattern recognition, time series and natural language processing for the State of California (client) and other global firms.

Data Science Researcher

University of Michigan

May 2020 – Present | Ann Arbor, Michigan

- Team lead for end-to-end data science process. Built a search engine for UN and International NGO programs reports.Developed application using Django.
- Developed Natural Language Processing based relevance ranking (BM25) and executed report summarization using deep learning algorithm BERT.
- Implemented Big data search engine using Apache.
- **Accomplishment**: Search engine has MAP higher than Google, Bing for the UN and NGO program using Hadoop, Spark and cloud based data lakes.

Machine learning NLP Researcher

University of Michigan

January 2020 – November 2020 | Ann Arbor, Michigan

- Developed Machine learning models using Random Forest, Logistic Regression, SVM. Feature engineering from LIWC, Stanford CoreNLP, TF-IDF n-gram and GloVe word embedding. Selected important features using SelectKBest. Evaluated models using LIME classifier (Local Interpretable Model-Agnostic Explanations).
- **Accomplishment**: Built a Machine learning classifier based on linguistic features with F1 score of 82.

Data Scientist

State Government of Chhattisgarh, India

July 2016 – June 2018 | Ambikapur, India

- Led a team of Scientists and Engineers for new product development. Developed a predictive model for hotspot using Random Forest, Logistic Regression, MLP and Linear model.
- Accomplishment: Awarded USD 37,000 for the implementation by the Ministry of Environment, Forest and Climate Change.

PROJECTS

- Text Chatbot Demo Link
- Advanced Data Visualization on complex dataset CDC Demo Link
- Search Engine for pdf documents based on Word2vec and BM 25L Article
- Time series analysis and forecasting on financial data exchange rate of Euro-USD Report
- Heart-rate variability analysis to predict emotional state Github
- Deep Learning for Image Recommendation on AWS Github
- Database schema design and data modeling Github
- Sentiment Analysis on Autonomous cars Github

PUBLICATION

An Improved Segmentation Technique Based On Delaunay Triangulations For Breast Infiltration/Tumor Detection From Mammograms. International Journal of Engineering and Technology

Articles featured on Medium |Topic Modeling| |Advanced D3.js| |ML Features|

SKILLS

Python | Pandas | Numpy | Scikit-Learn | Tensorflow | Keras | GloVe | BERT | RoBERTa | GPT-3 | Simpletransformer | Pytorch | NLTK | Stanford CoreNLP | spaCy | gensim | Elasticsearch | Metapy | Apache Tika | Mallet | seaborn | Matplotlib | Altair | NetworkX | R | HTML | CSS | Django | Flask | JavaScript | D3.js | MATLAB | Minitab | Tableau | CRM | ERP | Jira | Airtable | MS Excel | Docker | SQL | MySQL | SQLite | Neo4j | Jupyter | AWS | Google Cloud Platform | Spark | Hadoop | Azure AI tool

MOST PROUD OF

Built Search Engine for UN reports
Chetah Link

Graduated Top of the class, Fall 2020

Top 2nd rank in Kaggle competition- UM
Search engine for COVID

College of Engineering and Computer Science Graduate Student Scholarship

Michigan Institute for Data Science (MIDAS) Workshop Instructor
Conducted Data Science Workshops for Michigan Universities