

# VIKAS KUMBHARKAR

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## WORK EXPERIENCE

### Senior Software Engineer

**MERCK** (Marlabs Inc.) (April 2021- Present)

- Built **Keyword** and **Phrase** extraction and normalization using semantic relation with **BiowordVec embedding**, and **BERT SentenceTransformers** for **8 million records**.
- Biomedical product extraction using **BERT** model and store in **MongoDB** and convert it in **Solr** format for deployment.
- Biomedical Product consolidation with **semantics** and **clustering** for **12 million records**.

### Machine learning Engineer

**HSBC Technology India**, Pune (TEKsystems Inc)  
(July. 2019 - Jan.2021)

- Build **NER, Text classification pipelines** using **GCP, NLP, and Deep learning model** for **Trade confirmation documents**.
- Assisted with Reconciliation Account onboarding, Automating validation process in **Clerical Bot** with **statistical hypothesis** and **Regex rule base** system.
- Reduction of onboarding time 80 clients within 2 months using **pandas** and **PostgreSQL automation**.
- Perform new rules and user acceptance from the operations team to integrate into the existing workflow for break allocation.

### Machine learning Engineer

Virtuous Soft Solutions ,Pune (June 2018- May 2019)

- Use **XGboost, LightGBM, and Catboost** models for Regression and Classification tasks.
- Build machine learning and NLP models using **Tensorflow, Pytorch** and Deploy using **AWS Sagemaker, Lambda, Comprehend, ECR** and **Docker**.
- Build a Retrospective and cross-role knowledge-sharing environment within the team
- Taken ownership from components to projects with mentoring juniors.

## PROFESSIONAL PROFILE

Skilled Machine learning professional with 3 plus years experience in designing and developing ML and NLP pipelines in diverse industries using state of art Deep learning and Transformers models. Possesses diverse experience in analysis and enhancing existing model with breaking huge milestones into small tasks. Proficient in collaborating within teams of professional as well as domain expertise.

## PREVIOUS EDUCATION

**Nirma University , Ahmedabad, Gujarat. 2016-2018**

- Master of Technology Computer Science (Networking Technology)

**Modern Education Society college of Engineering , Pune, Maharashtra 2011-2015**

- Bachelor of Engineering (Computer Science)

## Key Projects

Merck Group (July 2021- Current)

- **KeyPhrase Extraction and Normalization.**
- **Biomedical Product extraction and Consolidation.**

HSBC (July 2019- Dec 2020)

- **SORT: Smart Optical Reader Of Text**
- **Reconciliation matching Automation**

Virtuous Soft solutions (Aug 2018 - May 2019)

- **Building status, license prediction, and classification.**
- **Insurance Claim Prediction.**
- **Customer Interaction and text Intelligence.**
- **Food ingredients, recipes, and taste omnichannel platform.**

System Level Solutions ,Anand, Gujarat (Aug 2017- May 2018)

- **Pulmonary Lung Classification and Lung Cancer Prediction using Fuzzy Logic and Deep Learning.**

## Machine learning Intern

System Level Solutions ,Anand, Gujarat (Aug 2017- May 2018)

- Researched and simulated various Computer Vision techniques for preprocessing.
- Implemented **Fuzzy connectedness Algorithm** using **NumPy** for Segmentation to increase accuracy from **63% to 82 %**.
- Implemented different architectures like a sequence of **Convolutions**, Pooling, and Activation with Hyperparameter tuning to increase model performance and Accuracy.

## Cloud Support Engineer

Virtuous Soft Solutions ,Pune (Aug 2015- June 2016)

- Provided technical assistance for enterprise solutions and cloud services.
- Proven ability to use a wide variety of open source technologies and cloud platform like **AWS, GCP**.
- Demonstrated proficiency in **Linux** hands-on and debugging skills.

## TECHNICAL SKILL SET

- **Python** : Numpy, Pandas,Sklearn, Matplotlib.
- **Machine Learning**: Classification, Regression, Statistical and Predictive modeling using Boosting algorithms.
- **Algorithms**: Decision Tree, Random forest, XG boost, Light GBM, Catboost.
- **NLP libraies**: SpaCY,Stanford Core NLP, NLTK, gensim, Huggingface.
- **Deep learning**: Tensorflow, Keras, CNN, RNN, LSTM, Transformer (BERT).
- **Cloud Services**: AWS(Sagemaker, Comprehend, Textract), GCP(Vision).

## CERTIFICATION AND ACHIEVEMENTS

- Natural Language Processing in Tensorflow, Coursera.
- Neural Networks and Deep Learning, Coursera
- Clustering Geolocation Data Intelligently in Python, Coursera
- Structuring Machine Learning Projects, Coursera.
- Won University-level research project competition (2014) for replacing the password with 2-step authentication system.