DHARMANATH PATIL

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Being passionate about problem-solving, deep learning and analytics, and through my past experience, I would be a better fit for the opportunity that is offered. Experienced Data Scientist with a demonstrated history of working in the Artificial intelligence and Deep Learning industry. Strong engineering professional with a Bachelor of Engineering (B.E.) focused on Computer Science from Sir M Visvesvaraya Institute Of Technology.

PROFESSIONAL EXPERIENCE (5 YEARS)

PromptCloud, Bangalore, India

JobsPikr: Extracting relevant information from job descriptions.
 For example: Skill set extraction, Department Identification,
 Salary extraction, AgencyVsCompany job posting differentiation.

Senior Data Scientist..... 2018 May - 2020 Mar *Youplus Inc, Bangalore, India*

- VIEW: Extracting insights like sentiment, attributes, opinions from videos using feature engineering and ML models.
 Recommending these insight videos in various pages to drive the business and increase the user engagement.
- VOISE: Video opinion search engine is the first platform to index world's opinion in videos. In video, people share opinions in their own ways. This valuable but unstructured data appears in spurts and between interruptions. With machine cognition, important moments are separated and indexed for AI & ML powered processing.

Torry Harris Business Solutions, Bangalore, India

 CognateAI: An integrated AI and ML tool for big data platforms..

Defense Research and Development Organization, Bangalore, India.

• High Radar Range Profile Classification: A model that replaces the traditional way of differentiation between warships and oil mining ships.

EDUCATION

BE Sir. M. Visvesvaraya Institute of Technology

2012 - 2016

Course: Computer Science and Engineering

Distinction

PUC Alva's P. U. College

2010 - 2012

Course: PCMB **Distinction**

AWARDS

December 2020 : Best Team Award by PromptCloud

• April 2020 : Excellence Award by PromptCloud

• May 2020 : Excellence Award by PromptCloud

• July 2019 : Excellence Award by Youplus

• August 2018 : Excellence Award by Youplus

- September 2018 : Excellence Award by Torry Harris Business Solutions
- State level 1st Rank Secured state level 1 st rank in international Mathematics Talent Examination 2008 09 conducted by I.C.E.T.C
- National level 4 th Rank Secured national level 4 th rank in International Mathematics Talent Examination 2007-08 conducted by I.C.E.T.C

SKILLS

Natural Language Processing, Tensorflow, Deep Learning, Machine learning, Python, Pyspark, Elastic search etc

PERSONAL INTERESTS

Custom GPU Builds, Mentoring, Writing blogs – Analytics Vidhya, Medium, TDS, Ukulele, Guitar, Trekking, Volunteering for NGOs

MACHINE LEARNING AND DEEP LEARNING PROJECTS

PromoptCloud Projects

https://www.jobspikr.com/blog/jobspikr-feature-update-2020

- <u>Skill set extraction</u>: Creating the logical labelled data to train bi-LSTM model for extracting the relevant skill set from job descriptions. <u>Responsibilities</u>: Literature survey, Data preparation, ML model development. <u>Technologies used</u>: NLP, TensorFlow, LSTMs, Python.
- <u>Agency Vs Company</u>: Categorising the job description based on whether it has been posted by the company itself or an agency.

Responsibilities: Literature survey, Data preparation, ML model development. *Technologies used*: NLP, TensorFlow, BERT, Python.

- *Job Title normalisation*: Removing the irrelevant information from the job title in order to standardise the field.
 - *Responsibilities*: Literature survey, Data preparation, ML model development. *Technologies used*: NLP, TensorFlow, BERT, Python.
- <u>Experience, Salary and Currency extraction</u>: Multi-task model in order extract salary and minimum experience from the job description.
 - *Responsibilities*: Literature survey, Data preparation, ML model development. *Technologies used*: Multi-task model, NLP, TensorFlow, Random Forest, Python.
- <u>Department categorisation</u>: Categorise the job description into multiple department departments..
 - *Responsibilities*: Literature survey, Data preparation, ML model development. *Technologies used*: NLP, TensorFlow, Variational Auto Encoder, Python.
- <u>Seniority level prediction</u>: Predicting the required seniority of the job posting. Responsibilities: Literature survey, Data preparation, ML model development. Technologies used: NLP, TensorFlow, Distilled BERT, Python.

Youplus Inc. Projects http://dharmanathpatil.com/VISION.html

- <u>Passage Ranking</u>: In order to show opinionated videos on e-commerce pages, all the videos need to be ranked for a given question and product.
 <u>Responsibilities</u>: Literature survey, Data preparation, ML model development.

 <u>Technologies used</u>: Mixture of experts, NLP, TensorFlow, MLSTMs, Elasticsearch, Python.
- <u>Attribute identification</u>: If a user is interested in a particular attribute of a product, in order to show related opinionated videos attribute has be extracted from all the videos. <u>Responsibilities</u>: Data preparation using ML models, Feature engineering, Feature selection using inferential statistics, EDA, Model development. <u>Technologies used</u>: Topic Modeling, GRUs, TensorFlow, NLP, MySQL, Pyspark, Python.
- <u>Information retrieval</u>: In order to place opinionated videos on web pages, page related videos must be retrieved from data storage. Irrespective the type of retrieval (Push or Pull based retrieval) information always needs to relevant to the page. Responsibilities: Architecture design, Data source, Data manipulations, Feature extraction, Building IR. Technologies used: Elasticsearch, Docker, MongoDB, BERT model, TensorFlow, NLP, BM25, descriptive and inferential statistics, probability, pyspark, python, Elasticsearch.
- <u>Recommendation engine</u>: Creating a knowledge graph and inferring what user might be interested in and recommending such opinionated videos to users.
 <u>Responsibilities</u>: Creating knowledge graph, storing knowledge graph, Mapping user profiles to nodes of Knowledge graph, Building recommendation engine.
 <u>Technologies used</u>: Spotlight, DBpedia Knowledge graph, Graph traversing, Topology and cataloging, Key phrase and entity identification, NLTK, BERT, SciPy, LSTMs, Embeddings and similarities, Python, Elasticsearch.

- <u>Key phrase and Named Entity Detection</u>: While building an opinion video recommendation engine, it is required to understand various key features that are present in a video. These features will help us to recommend video snippets to users. *Responsibilities*: Data collection, Data preparation, EDA, Feature engineering, Feature selection, Model development, Model evaluation on business data. *Technologies used*: BERT, DBpedia spotlight, NLTK, SciPy, Ensemble model, text ranking, Text normalisation, Python.
- <u>Video snippeting</u>: In videos people share their opinions. This valuable but unstructured data appears in spurts and between interruptions. With machine cognition, important moments are separated and indexed for AI & ML powered processing. Responsibilities: Data collection, Data preparation, EDA, Feature engineering, Feature selection, Model development, Model evaluation on business data. Technologies used: Topic modeling-LDA, NMF; Elbow curve, Perplexity, Dissimilarity identification, Python.
- <u>Aspect based opinion mining</u>: Opinions are always ambiguous; people might express positive opinion and negative opinion of two different aspects of the same product in a single sentence. Identifying such sentences and extracting opinions of respective aspects. *Responsibilities*: Literature survey, Data preparation and EDA, Feature engineering, Model development, Model evaluations. *Technologies used*: Attention mechanism, BERT, Python.
- <u>Category classification</u>: Data cataloging is a fundamental need when it comes to product development. Classification model helps to store the data in structured format and help us to give better insights about inhouse data.
 <u>Responsibilities</u>: Model development, Model evaluation, Model optimisation.
 <u>Technologies used</u>: BERT, Distilled BERT.
- <u>Suggestion mining</u>: Identifying the suggestions from product reviews in order to improve the product quality. This model helps to extract the suggestions from customer reviews *Responsibilities*: Model development, Model evaluation, Model optimisation. *Technologies used*: BERT, Python

Other projects: Sentiment Analysis, Semi-supervised abstractive summarisation, Extractive summarisation, Speech recognition, Speaker diarization etc