# Senthil Kumar

Data Scientist | NLP Practitioner | **Espouses Python Best Practices** 

Competent in the use of ML and DL for NLP tasks, Proficient in Python-Data Science Project Execution, Perpetual learner of the art of effective communication



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# **WORK EXPERIENCE**

# Deputy Manager/ Snr Data Scientist

Ford Analytics Division - ML CoE Team 05/2018 - Present

Chennai, India

Roles

- Individual contributor/developer: Employ state-of-the-art/bestsuited ML and DL techniques for NLP Applications
- Co-develop end-to-end NLP applications: from data acquisition, cleaning, labeling, preprocessing, model development till deployment
- Python/NLP Trainer | Interviewer of NLP Candidates across **Analytics teams**

## **Assistant Manager**

LatentView Analytics

04/2014 - 04/2018

Chennai, India

Roles

- Individual contributor [2.5 yrs] | Team Manager [1.5 yrs] | Social Media Analysis | NLP Projects
- LinkedIn Recommendation Excerpt: "... and extraordinary dedication all contributed significantly to growing our analytic practice - in size, output and level of insights achieved..." - Client stakeholder from a F100 Tech Major
- LinkedIn Recommendation Excerpt: "....Sincere, driven, articulate and utterly committed ... His communication skills have been exemplary, always crystal clear ..." - My Reporting Manager

## **Senior Consultant**

Capgemini

01/2014 - 03/2014

Bangalore, India

## **Lead Analyst**

Beroe Inc - A Procurement Intelligence Firm

07/2010 - 12/2013

Chennai, India

# COURSE WORK

Deeplearning.ai-Coursera 5-course Specialization (11/2018 - 05/2019)

GCP Big Data & ML Fundamentals (03/2021 - 04/2021)

# **EDUCATION**

**B.E - Electronics & Communication - 8.6 CGPA** Madras Institute of Technology, Chennai 2006 - 2010

Twelfth Grade - 95% | Tenth Grade - 92% Sri Sankara Vidyalaya School, Chennai

# **KEY RECENT EFFORTS**

BERT Fine-tuned Aspect-based Sentiment Analysis Pipeline

Recognize/Replace Personally Identifiable Information using Transformer-powered NER

Spark-optimized Spacy Pipeline for Text Cleaning and Metadata Creation

Transfer-learning powered Text clustering | Topic Modeling

## TECHNICAL SKILLS

## Traditional NLP Techniques

Text data wrangling/cleaning (using regex, lemma, stemming, etc.,) ~ Embedding (TFIDF, W2V, Glove,etc.,), ~ Topic Modeling ~ Clustering

## Modern DL-based NLP Techniques

BERT and other transformer-based Language models ~ Text classification including Sentiment Analysis ~ Named Entity Recognition ~ Semantic Search ~TL-powered Clustering

## NLP Libraries I - Spacy

Spacy for tokenization, rules-based matching, linguistic features, custom-model training using GPU and transformers

## NLP Libaries II - PyTorch & its Ecosystem

Native PyTorch modelling, **Huggingface Transformers** (built on top of Pytorch pipeline), Sentence-transformers

## NLP Libraries III - For Traditional NLP Needs

GenSim and FastText for Topic Modeling, Word Representations, efficient Text Classification

## Other Data Science Libraries

Extensive use of Sklearn, Pandas, Numpy and Altair (for visualization) ~ basics of **PySpark** ~ **multiprocessing** ~ **Fastapi** for REST API and **Streamlit** for prototype UI

Code versioning, code reviews, pull request driven co-development with fellow developers

## ML Project Management Best Practices

Set up of **WSL/Linux** OS ~ Virtual environments extensively used - **Poetry**, **venv** and conda ~ Pytests ~ Leverage Docker for GPU-centric development ~ Basics of Kubernetes to deploy REST APIs or UIs

# **HONORS**

Promoted from Snr Analyst to Deputy Mgr (11/2019)

After 1.5 years of joining Ford

Ford Asia-pacific Recognition Award (05/2019)

Successful spearheading of a Project

Promoted from Snr Analyst to Assistant Mgr (10/2016)

After 2.5 years of joining LatentView

LatentView Analytics - Encore Award

For company-wide best performance for Jul-Sep 2016 Quarter

Promoted twice in Beroe

During my 3.5 year stint at this first company

Scored centum in Physical Science Engg Entrance Exam

1 of 7 individuals from Tamil Nadu to score centum in 2006