# My Portfolio

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1. **Introduction:**

I am a software developer, based out of Bangalore, India, with more than 13 years of experience in designing and developing software features and products that meet or exceed customer expectations.

I am currently developing AI/ML solutions to help customers with their business requirements, with a key focus on natural language processing (NLP), deep learning, computer vision, and linear and logistic regression.

I hold a post-graduate Master of Science (M.Sc.) degree in Machine Learning and Artificial Intelligence (ML and AI) from Liverpool John Moores University (LJMU), United Kingdom and a graduate engineering degree, B.E. in Computer Science and Engineering, from Anna University, Chennai, India.

My key skills include:

* Python.
* Java.
* Natural language processing.
* Deep learning.

I look forward to collaborating with you to help you with fulfil your business needs in a timely manner.

1. **My projects:**
   1. **Natural Language Processing:**
      1. **Emotion and Personality Trait Detection from social media text:**

* Development of a hybrid deep-learning classification model to address existing research gaps and build a better classifier to determine the personality trait or emotion being conveyed by input lines of text gathered from social media..
* Programming language used: Python.
* Python libraries used: NLTK, Keras, Gensim (FastText, Word2Vec), GloVe etc.
* Datasets used:
  + MBTI
  + TEC
  + ISEAR
* Processing steps:
  + Data pre-processing steps (text cleanup, lemmatization, word tokenization etc).
  + Data splitting (train-validation-test split).
  + Text tokenization.
  + Label encoding.
  + Class imbalance handling.
  + Word embedding (FastText, GloVe, Word2Vec).
  + CNN layers.
  + Bi-directional LSTM (or) Bi-directional GRU layer.
  + Classification layer (softmax).
  + Model performance evaluation (precision, recall, accuracy, F1 score, AUROC).
    1. **Automatic Ticket Classification for a Banking Solution:**
    2. **Disease-Treatment Matching for HealthCare application:**
  1. **Computer Vision:**
     1. **Skin Cancer Detection:**
     2. **Gesture Recognition:**
  2. **Other projects:**
     1. **Customer churn classifier for the Telecom Industry:**
     2. **Real-estate price prediction and analysis:**
     3. **Bike-sharing demand prediction and analysis:**