Hemant Mehra

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Experience

NEC Corporation India Pvt Ltd **Noida, India**

Member Technical Staff ***Jan 2021 - Present***

- **NLP**: Developed and deployed End-to-End NLP solution to automatically convert SAP client's raw requirements into system configuration and reduced manual effort by 60%.
- **Model Deployment**: Deployed NLP models into a web application for automatic system configuration.
- **Web Development**: Built UI Components to show prediction from the models and sending UI changes to model retraining framework.
- **Automatic Model Training**: Implemented a framework for automatic retraining of models based the data provided by the user during evaluation.

Graduate Engineer Trainee ***Jul 2019 - Dec 2020 (1.5 Years)***

- **Data Pipeline**: Developed a data pipeline in Python to convert data into different formats for AI experiments.
- **EDA**: Performed EDA on text dataset using word frequency histogram and tSNE plot of word vectors.
- **Text Classification**: Building and training neural network in python Tensorflow to classify text requirements into configuration points.
- **ML Experiments**: Developed a framework performing experiments along with result analysis using different frameworks like Rasa NLU, fasttext, sklearn and Tensorflow.
- **Hyperparameter Tuning**: Performed hyperparameter tuning on neural networks and increased TPR by 5%.

Trainee ***Jan 2019 - Jun 2019 (6 Months)***

- **Data Mining**: Mining textual data of ERP systems through web scraping for training AI models.
- **Data Preprocessing**: Written scripts for data cleaning and data preprocessing.
- **Scripting**: Written scripts in python to automate manual task in linux system.

Technical Skills

Language: C, Python, Javascript

Machine Learning Concepts: Linear Regression, Logistic Regression, Naive Bayes, SVM, Decision Tree, Random Forest, Bagging and Boosting, Gradient Descent

NLP Concepts: Word2vec, TF-IDF, Stemming, Lemmatization, Text Similarity, Keyword Extraction, NER, Text Intent Classification

Deep Learning Concepts: Neural Networks, RNN, LSTM, BERT

Libraries/Frameworks: Tensforflow, Keras, Rasa NLU, Fasttext, Pandas, Numpy, Scikit-learn, matplotlib, Django, Flask, Gunicorn, jQuery

Developer Tools: Jupyter Notebook, Git, Docker, Azure DevOps, Tensorboard

Case Studies

NYC Demand Taxi Prediction: Predicting the number of taxi needed in the given region of New York City using machine learning techniques like Linear Regression, Random Forest Regressor and XGBoost.

Personalised Cancer Diagnosis: Classification of given genetic variations/mutations based on evidence from text-based clinical literature using Naive Bayes, Logistic Regression, SVM and Random Forest Classifier.

Relevant Coursework

• DeepLearning.AI TensorFlow Developer • Mathematics for Machine Learning: Linear Algebra

• Fundamentals of Reinforcement Learning • SQL for Data Science • Google Cloud Platform Fundamentals

Education

ABES Engineering College, A.K.T.U. Uttar Pradesh, India

B. Tech - Computer Science and Engineering *Jul 2015- Jun 2019*