Raghu Nanden

(4.9 yrs Experience)

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| CONTACT | Email: *raghunanden02@gmail.com* | City: Gurgaon (ready to relocate) |
|  | Phone: +91-9599044124 | Code: <https://github.com/raghunanden> |
| EXPERTISE | Natural language processing (NLP),NLU, data science, machine learning, user modeling, computer vision, deep learning, artificial intelligence, python, graph database, predictive modeling | |
| EXPERIENCE | **Senior Data Scientist**, Incedo, 2017-present  Lead & developed client focused solutions tools by applying data science and artificial intelligence state of the art methods | |
|  | ***Interpret Knowledge Management*** | Client: *KBRA* |
|  | Developed a predictive relationship extraction module for a knowledge management system.  Responsible for creating whole predictive modeling life-cycle i.e. data acquisition, baseline model building, exploratory data analysis, feature engineering, error analysis to model deployment in production.  Developed a deep neural network model with the state-of-the-art macro-averaged F1 metric of 82 %.  Applied machine learning, deep learning, GraphDB, text analysis to classify relationships in sentences. | |
|  | ***Chatbot (Incedo cognitive framework)*** | Client: *Verizon, Tripwire, Vodafone* |
|  | Lead the data science team to build Incedo first chat bot conversation platform.  Developed statistical machine learning model to anticipate user intentions to take actions.  Responsible to lead data science team to create iterative life-cycle of user intent recognition system with 84% roc\_auc\_score.  Implemented custom and pre-trained entity extraction models to extract entities from the text in chat  Retrain the model to improve the quality of intent recognition.  Applied machine learning, web scrapping, text analysis, statistical analysis to classify user intentions | |
|  | ***Advisor advice analysis*** | Client: *Incedo* |
|  | Developed an information extraction system to measure the quality of the stock market advisor’s recommendation based on analyzed success/failure rate of advisor.  Applied machine learning and tactical information extraction techniques to extract required information from financial news website.  Worked with business analyst to enhance the business use case of this analysis system. | |
|  | **Software Engineer**, Aon-Hewitt, 2014-2017  Developed solutions with focus on unstructured data from websites and the portals. | |
|  | ***Healthcare news clustering*** | Client: *Aon internal portal* |
|  | Developed unsupervised machine learning clustering model to segment different pharmaceutical news.  Responsible for data acquisition from different websites.  Determined the number of clusters by hierarchical clustering; used clustering and topic modeling algorithms i.e. Kmeans and LDA respectively to cluster news articles.  Applied various text feature extraction techniques to improve the homogeneity score.  Exposed it using flask API to find the topic of the news article. | |
|  | ***Healthcare package recommendation system*** | Client: *Aon Analytics Singapore* |
|  | Responsible for data cleaning operations extracted from dependent verification system database.  Reported each data cleansing activity for each column of the data as directed by mentors.  Applied data wrangling techniques using python and pandas. | |
| RESEARCH &  OPEN SOURCE | ***Open-Relationship-Extraction Framework***: A machine learning & Deep Learning based development and error analysis framework for common relationship extraction.  Link: <https://github.com/raghunanden/relationship-extractor>  ***Pneumonia Detection System***: Deep Learning based Pneumonia detection system from medical image of patient.  ***4betterW2V:*** Context aware word vectors based on deep Learning and machine learning techniques.  ***Chat bot Intent Recognition***: Research framework for data acquisition and modeling based to solve the semantic similarity & Natural Language Inference problem. | |
| CERTIFICATION | Coursera certified ***Deep Learning specialist***  Upgrad Machine Learning course | License: 8L2K2HLZEWX5 |
| ACHEIVEMENTS | ***Top 15 %*** in Kaggle RSNA Pneumonia Detection challenge. Domain: Medical, Computer vision | |
|  | ***Top 15%*** in KaggleTwo Sigma user interest prediction competition. Domain: Real Estate, Analytics | |
|  | ***2nd place*** in Aon Hackathon for sentiment analysis. Domain: NLP, text analysis | |
| SKILLS & TOOLS | Python, keras, tensorflow, SKlearn, matplotlib, seaborn, pandas, numpy, statsmodel, linear regression,logistic regression, NLTK, Gensim, fasttext, Spacy ,decision trees, random forest, xgboost, deep neural networks, CNN, YOLO, RNN, LSTM, GRU, transfer learning, model evaluation, model selection, flask, restful API, sql, relational database, graph database, Neo4j. | |
| EDUCATION | Bachelor of Engineering, May 2013 | University: Panjab University Chandigarh |