

Yashu Gupta

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Versatile, high-energy professional targeting challenging assignments in **Machine Learning/ Data Science** with a reputed organization

PROFILE SUMMARY

- An IT professional with **3.1 Years** of Experience in **Machine Learning, Deep Learning, Data Science, Natural Language Processing, Predictive modeling, Analytics, Embeddings, Python, Software Development, Architectures**.
- Skilled in managing end-to-end development of software products / projects from inception, requirement specs, planning, designing, implementation, configuration and documentation.
- Extensive project management and R&D experience with Architectural Knowledge, with conceptual understanding of the application development life cycle and software development methodologies.
- Knowledge of Python, Machine Learning, Deep Learning, Data Science, Algorithms, Neural Networks, NLP.

ORGANISATIONAL EXPERIENCE

Eclerx as Data Scientist / Senior ML Engineer	NOV'18 to Present
Monster Worldwide as Data Science /ML Engineer	FEB'18 to NOV'18
Genpact as Machine Learning Engineer	Sept'16 to Feb'18

Role's and Responsibilities:

- Managing software development operations inclusive of defining system wide requirement analysis and designing as well as module level work effort estimations and integration for the whole system
- Having enrich and delightful experience in enabling Machine Intelligence and Automation by Statistical **Machine Learning, Deep Learning, Neural Networks, LSTM, Neural Machine Translation, RNN, NLP, Word Vectors, ELMO Embeddings, BERT, Text Analytics**, Statistics, Linear Algebra for Machine learning algorithms and optimization.
- Having enrich experience in developing and deploying machine learning models using latest techniques.
- **Eclerx Roles:-** Developed Neural machine translator (Spanish to English) using Attention mechanism for Comcast, RTR Predictor analytical model, NPS Predictor tool, S4X similarity tool, Comcast Chat Volume regression model, NPS Drivers and various products using machine learning and deep learning capabilities.
- **Monster Roles:-** Developed and Design Monster Jobs bot, Named Entity Recognition using Bi LSTM for Monster Bot and Roles Summary for job post by recruiter, Recommendation system, Semantics Search for monster job search, Intent Classification for Resume Parser.
- **Genpact Roles:-** Worked extensively on Genpact highest bidding Products (Neural Intelligence Platform and Genpact CORA) for leveraging Artificial Intelligence into Business Opportunities and Automation. Module owner for classifying the customers queries using advance machine Intelligence for GNIP. Developed various products and analytical models for Genpact COE

Highlights:

- Successfully completed various projects and developed various complex algorithms.
- Received **SPOT AWARDS** and STAR Rating for Delivering projects before time and increasing the productivity for the same in Eclerx.
- Received award for **DISRUPTIVE THINKER** for successfully delivering People First automated helpdesk to Genpact.
- Successfully productionized various products for Monster and improving the web traffic for search using semantic search and Monster Bot

IT SKILLS

- Technologies and Techniques: Python, Machine learning, Deep Learning, Neural Net, Word vectors, ELMO
- Algorithms: Classifications, RNN, LSTM, Attention Neural Nets, DOC2VEC, Word2Vec, NB, MNB
SVM, Logistic Regression, Random Forrest, Ensemble modeling, XG boost, Cat boost, KNN
- Frameworks and libraries: Keras, Tensorflow, Scikit-Learn, Gensim, Pandas, NLTK, Numpy, Matplotlib
- Operating System and Tools: MAC, Windows, ubuntu, Mongo DB, SQL, WEX

PROJECTS (ECLERX)

Title: NPS Predictor

Brief: Developed NPS predictor Tool for Comcast Xfinity Home using Machine learning, word vectors and advance natural language capabilities to predict Net promoter score from raw text chat. Developed features from raw text chat using natural language processing. This product has different modules.

Chat Parser- Developed chat parser and bifurcate customer agent chat and developed features from the same. Finding the dead air instances, derogatory words, negative words, appreciated content, chat duration, dead air pauses and convert the features to binary

Chat classifier-Classify the chat and finding the probability of Promoter, Detractor, Passive. Used google pretrained word vectors embedding and finding the dense vectors for raw text tokens and classify the chat using SGD classifier with modifier huber loss and use these probabilities as features for further classification.

NPS Predictor-Developed a Random Forest classifier and predict the NPS and achieved accuracy of 89%.

Title: Neural Machine Translator

Brief: Developed a Neural machine translator using attention mechanism to translate text offline from Spanish to English and English to Spanish and integrate the same with the Comcast Xfinity tool. Encoder – Decoder architecture is used along with attention mechanism to translate the text for customer operations. The text is first converted to vectors using glove model and **LSTM** is used on the encoder side and decoder side. For decoding Attention mechanism along with LSTM for converting the text to different Language. It uses Keras embedding layer for getting the vectors and LSTM layer for encoding and decoding.

Title: RTR Predictor

Brief:- Developed a model for Rogers Fido for predicting the Request to Review. The model is trained using supervised machine learning techniques. The purpose of project to minimize the RTR. The model it uses is Random forest for predicting request to review and deployed under wsgi framework using apache mod wsgi configuration. Hyperparameter tuning grid search is used and trained on labelled dataset

Title: Document similarity using word2vec and EIMO.

Brief: Developed a system for comcast customer operations for finding duplication of comments using word2vec and cosine similarity. The purpose of this project is to find the duplication in comments enter by the CO. The system is developed on existing comments and word2vec model is used for finding the Dense vectors for the string corpus and uses cosine similarity for the string matching. Genism is used for creating word vectors and for string comparison cosine similarity is used and integrated with wsgi micro web framework.

Title: Chat volume Forecast

Brief:- Developed a analytical Regression model for Eclerx for predicting the chat volume for daily basis using multiple Regression analysis . The Purpose of this model is to predict how many agents we need for a particular shift using past experiences.

Title: Churn Prediction for Comcast

Brief:- Developed a model for comcast for Churn analysis of the customer from their services. The model uses past records for predicting out the customer churn and uses different features which defines the customer churn. The algorithm used for this is Logistic Regression and for class imbalance SMOTE Tomek Link is used.

PROJECTS (MONSTER)

Title: Monster Name Entity Recognition (NER)

Brief: Developed NER using Deep Learning Recurrent Neural Networks (LSTM) to identify Skills, Roles, Company, Locations patterns from the raw text user queries to make search effective. Also extracting the useful information from Resume and updating the job seeker profile. LSTM Bidirectional model is used to extract the entities from the text data. For Training NER model customers logs are used with tagged skills, roles.

Title: Monster Jobs BOT

Brief: The project entailed automating responses to user queries at the earliest. The Monster Bot using the power of Deep Machine Learning, NLP to handle such queries. User Can apply jobs and ask FAQ while doing chat with the Engine. Developed this Product from the scratch to production phase. It has various modules to handle user queries.

Classifier: Monster BOT has more than 800 questions with overlapping intents and Terminology. There was a need of smarter & efficient classification algorithm for mapping the user queries with the best-suited response. For mapping such queries, we have used SVM with stochastic gradient descent learning.

NER: A Deep Learning NER Model is trained to extract the entities from the text. Entities like Roles, Skills, Organizations can be extracted from raw text. RNN(LSTM) Bidirectional model is trained for extracting such entities using Keras TensorFlow framework.

Intent Detection Classifier: Developed a Deep Learning model using **RNN-LSTM Model** along with **Word2Vec** to know the intent of the query asked. This model is Developed to get the intent and to categorized the query to a Class. Bidirectional LSTM model is trained for the same to classify the user queries so give accurate results from the classifier layer.

Apache mod WSGI Django framework: Monster Bot using Micro web framework architecture for serving the content. MOD WSGI interface is used for serving the request and responses between the Apache engine and Django WSGI server. Flask framework is used for creating the api's.

Title: JOBS Recommendation System Engine

Brief: Developed a JOB Recommendation Engine for Suggesting similar matching jobs to a user. This system is developed to suggest similar jobs to a user based on skills, Roles and Previous searches of a user. The model is trained using DOC2VEC Technique. Also, Model is integrated with email notification, based on previous searches, we recommend the matching jobs to a user. Technology used is Python with **Genism DOC2VEC**. The algorithm used is **DOC2VEC Distributed Memory**.

Title: Semantic Search Engine

Brief: Worked on Semantic Search Engine for Monster Search (Seekers and Recruiters). This system is developed to interprets the meaning behind the words and concepts. It uses webs of related terms and their meanings to uncover resumes that use words closely related to search terms. This engine has various modules

PROJECTS AND POC (GENPACT)

Title: Genpact Neural Intelligence Platform

Brief: Genpact's Neural Intelligence Platform harnesses the power of automation and artificial intelligence technologies—natural language processing (NLP), cognitive, machine learning, and analytics. The platform comprises three layers: a data engagement platform that can easily access and manage multiple structured and unstructured data sources; an “intent assessment and reasoning” engine that includes sentiment and predictive analytics; and a deep machine learning engine that can sense, act, and learn over time

Classifier -> This involves the classifications of classes, training of dataset and predicting the output using the SK-Learn classifier (MNB, SVM, SGD as Classifier) and SGD for the optimization to map the user queries with the best suited response and make the system efficient.

Title: Genpact Intelligent Connections

Brief: Developed several modules for the Genpact Intelligent connections product. It is a platform which incorporates different machine learning techniques to get intelligent Connections. This product is developed for the Sales Team of a Company to get strong connections using different sources like Twitter, LinkedIn, company data sites to make Business Better

TRAINING AND CERTIFICATION'S

Title: Python Training, Machine Learning, Data Science, Deep Learning, Sequence Models.

Organization: Stanford, Deeplearning.ai, Lynda, Udemy, Udacity, Coursera (ML, DL, Optimization), Edx

OTHER SKILLS -: Rooting Android phones, Partitioning S.D cards, Performed Testing on Beta version of Cyanogen Mod 12 for its Developer (**Varun Chitre**).

BLOG-: Successfully Run a Blog on Technology named as **Digital Suggestions** for 2 years with approved Google AdSense.

ACADEMIC DETAILS

- **B.Tech.** (Computer Science) from Rayat Bahra Institute of Engineering and Technology, with 72% in 2016
- **12th**, from Noorpur Public School (C.B.S.E Board), Nurpur with 65.5% in 2011
- **10th** from Noorpur Public School (C.B.S.E Board), Nurpur with 78% in 2009

PERSONAL DETAILS

Date of Birth:	27 th August, 1993
Gender/Martial Status:	Male/Single
Linkedin:	https://www.linkedin.com/in/yashu-gupta-12480766/
Git Hub:	https://github.com/yashugupta786
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