Ajay Bhattacharjee

Data Analyst | HSBC | Bangalore, India
Portfolio | bhattacharjeeajay12@gmail.com | Linkedin | Github | 6291016121

PROFILE SUMMARY

- M.Tech. Artificial Intelligence professional with 3.5 years of experience in Research in Computer Vision and NLP in University of Hyderabad & Machine Learning, Data Science in HSBC.
- Actively worked on predictive analytics and Risk Modelling using cutting edge Machine Learning techniques.
- Worked on research projects to solve Computer Vision and NLP problems using Deep Learning in Computer Vision Lab.
- Efficient in writing complex SQL queries to summarize data and generating standardized datasets.

SKILLS

• Python • SAS • SQL • Matplotlib
• Machine Learning • RASA
• Web Development
• Keras • SPACY • PHP
• Scikitlearn • Numpy • Pandas

EDUCATION

UNIVERSITY OF HYDERABAD
M.Tech in Artificial Intelligence
June 2018 | Hyderabad, India
CGPA: 7.83

TEZPUR UNIVERSITY
Master of Computer Application
June 2016 | Tezpur, India
CGPA: 8.22

TRIPURA UNIVERSITY
Bachelor of Computer Application
June 2013 | Agartala, India
Score: 79.25%

OTHER COURSES
• Applied Machine Learning Course
•Machine Learning - by Andrew Ng

MACHINE LEARNING

Hands on and in depth knowledge of ML algorithms - •Linear Regression •Support Vector Machines •Naive Bayes •XGBoost •K-Nearest Neighbors •Decision Trees •Natural Language Processing •MLP •CNN •LSTM •RNN

OTHER ML PROJECTS

SUPERVISED LEARNING
• Personalized Cancer Diagnosis
•Facebook Friend Recommendation
•Quora Question Pair Similarity

UNSUPERVISED LEARNING
•Apparel Recommendations
•Netflix Movie Recommendations

EXPERIENCE

HSBC | Data Analyst
July 2018 – Present | Bengaluru, India

- LOSS PREDICTION MODELLING - Currently working on developing Loss Given Default Model for predicting loss for home loans portfolio of Australia. various regression techniques (regression tree, random forest, linear regression, polynomial regression) are been used to study the performance.
  Tools used : Jupyter Notebook, Python, Numpy, Pandas, SKlearn
- CUSTOMER PAYMENT MISS DATE PREDICTION - This project aims at reducing outstanding receivables through improved collections strategies. A huge time is spent in understanding the portfolio and framing the assignment into Machine Learning problem. Various machine learning algorithms (Logistic regression, SVM, XGBoost,Naive Bayes, Decision Tree) are used.
  Tools used : Jupyter Notebook, Python, Numpy, Pandas, SKlearn
- PROBABILITY OF DEFAULT PREDICTION - Worked on the project to develop a model which ensures acquired customers are majorly non-defaulting. At acquisition (booking) level it eliminates the bad base of customers, reduces the net loss of the portfolio.To develop this model Machine Learning algorithms (Random forest, Logistic regression, Naive Bayes, SVM, Decision Tree) are used.
  Tools used : Jupyter Notebook, Python, Numpy, Pandas, SKlearn
- CHATBOT DEVELOPMENT
  Developed contextual chatbots for information retrieval and data analytics, uses open-source Natural Language Processing (NLP) library - RASA for intent classification, entity extraction and dialogue flow control.
  Tools used: RASA, Spacy, Python, Flask, HTML, Javascript
- DATA DEVELOPMENT - Worked on integration of data to create standardized datasets from raw datamart. This process has involved complex SQL queries to fetch and summarize data from data-marts into standardize format.
  Tools used: SAS, SQL

RESEARCH

COMPUTER VISION LAB (UOH) | Researcher
June 2017 – June 2018 | University of Hyderabad, Hyderabad ,India
Worked with **Prof Chakravarthy Bhagvati** in below two projects.

- OPTICAL CHARACTER RECOGNITION. Implemented OCR system using Deep Neural Network - **Convolutional Neural Networks(CNN)**. Extended the OCR with Transfer learning by using pretrained **autoencoders** followed by **Multilayer Perceptron(MLP)**. Transfer learning was found to be giving better result of 99.5 %.
  Tools used: Python, Keras, Numpy, Pandas, Spyder IDE
- NEURAL IMAGE CAPTION GENERATION. Worked on automatic image annotation (image-to-text). **Deep CNN feature extractor** is used as an encoder for images and **deep LSTM language model** is used as a decoder for text caption. Model having **encoder-decoder architecture** is trained on Flickr8K Dataset. The final model gave a BLEU scores of 40.4.
  Tools used: Python, Keras, Numpy, Pandas, Spyder IDE