

Nirbhay Tandon

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TECHNICAL SKILLS

Languages: Java, Python, JavaScript, SQL

Cloud : Terraform, AWS Kinesis Firehose, API Gateway, SageMaker, Glue, Lambda, Redshift Spectrum, S3,

Business Skills: Teamwork, Leadership, Mentoring, Client/Business Expectation Management

Additional Skills: Natural Language Processing, Exploratory Data Analysis, Hypothesis Testing, Machine Learning, Scrum, Agile, CI/CD, DevOps, Jenkins, Spring Boot

EXPERIENCE

Software Engineer III

Jan. 2021 – Present

J. P. Morgan Chase & Co.

London, United Kingdom

- Deployed AWS Sagemaker trained Recommendation Models to AWS using proprietary JP Morgan Machine learning platform & established connectivity using AWS API Gateway
- Authored Tech Primers on deploying Machine Learning models created in proprietary JP Morgan Machine Learning platform to AWS SageMaker with API Gateway endpoints
- Collaborated with Data Science teams to deliver on Recommendations based document recommendation engine
- Led various negotiations between global stakeholders that resulted in delivering flagship products before the deadline
- Designed various components like Bulk-Delete, Quick Search etc. for a low-latency client subscription portal using ReactJs, Apollo, GraphQL & ElasticSearch
- Designed Spring-boot 2 based data migration service for migrating RIXML based subscriptions to JSON format for over 6 million subscriptions under 1 hour
- Created weekly coverage reporting service to generate a report on active client data using Spring boot 2, Spring Batch, Sybase

Software Engineering Associate

Jan. 2019 – Dec. 2020

J. P. Morgan Chase & Co.

Glasgow, United Kingdom

- Developed a full-stack web application using React, MaterialUI, Java and GraphQL for external ans well as internal clients to read, share, manage and interact with Research published by JP Morgan Analysts
- Introduced the team to Jenkins & BitBucket based CI/CD SDLC, Scrum methodologies & Kanban
- Successfully migrated legacy applications over to the company proprietary CI/CD tool & enabled adoption for 16 other applications

Technology Analyst

Aug. 2016 – Jan. 2019

J. P. Morgan Chase & Co.

Glasgow, United Kingdom

- Complete SDLC for a ReactJS & Java based web application that replaced a legacy application
- Developed a standalone Spring Boot application for reporting client positions for one of the largest Prime Brokerage clients for JP Morgan
- Worked as *Client-Lead* in a 13 member team. We used Angular & Microsoft Azure to build and deploy a highly scalable web applications for one of our member charities
- Contributed towards improving the overall test coverage for Spring based web application and brought it up to 96% for unit test coverage using JUnit. I also worked on Selenium test cases for fully automated UI testing

Systems Programmer

Dec. 2015 – Mar. 2016

Vox Sciences

London, United Kingdom

- I was responsible for managing the existing application. I also developed the new deep-learning based speech recognition using C++

EDUCATION

Liverpool John Moore's University

Dec. 2019 – Jul. 2021

Master of Science in Data Science

Grade: Distinction

King's College London

Aug. 2014 – Apr. 2016

Master of Science in Robotics

J.S.S. Academy of Technical Education

Aug. 2010 – Jun. 2014

Bachelor of Technology in Information Technology

- Transformer Architecture for QnA** | Master's Thesis | *Python, NumPy, SciPy* | [Github](#) Dec. 2020 – Aug. 2021
- Proposed & implemented improvements to the existing Transformer Architecture by using Answer-Pointer layers
 - Benchmarked against existing state-of-the-art architectures like BERT, RoBERTa, DistilBert & ALBERT to show performance
 - Ran experiments around SQuAD 2.0 dataset and achieved F1 score of 0.74
- Question Answering System Using BERT** | Capstone Project | *Python, NumPy, SciPy* | [Github](#) Dec. 2020
- Question Answering System using DistilBERT architecture & SQuAD 2.0 Dataset
 - Training loss dropped from 12.0271 to 1.8473 in the final epoch
 - The validation loss dropped from 2.0035 to 0.0196
 - The fine-tuned model scored an F1 score of 0.87, after 20 epoch
- Deep Learning for Speech Recognition** | Master's Thesis | *Python, NumPy, SciPy* May. 2015 – Dec. 2015
- Developed a Speech Recognition system using Long Short-Term Memory architecture of recurrent neural networks
 - The project achieved 99.93% accuracy on a 40-memory cell network
- Viterbi Part Of Speech Tagger** | *Python, NumPy, SciPy, NLTK* | [Github](#) Oct. 2020
- Implemented vanilla Viterbi Part of Speech tagger & assessed its accuracy(75%)
 - Modified Viterbi algorithm using transition probability and emission probability
 - Tested the developed models on sample data and achieved an 22.81% higher accuracy with a modified Viterbi Algorithm(92.28%)
 - Correctly identified and tagged words missed by the vanilla Viterbi tagger
- Lead Score Case Study** | *Python, NumPy, SciPy* | [Github](#) Jun. 2020
- Performed extensive Exploratory Data Analysis
 - Developed various Logistic Regression models. The optimal model had 80% Accuracy, Precision & Recall
 - Generated a 'Lead Score' value. Higher the lead score, higher the chances of conversion for the company
- Telecom Churn Case Study** | *Python, NumPy, SciPy, EDA* | [Github](#) Aug. 2020
- Performed extensive Exploratory Data Analysis, worked with derived columns & data inference techniques
 - Identified key factors that cause a customer to churn
 - Developed multiple models using ADABOOST, XGBoost, Random Forest & Logistic Regression with PCA. The best model was a PCA & XGBoost Classifier after Hyper-parameter tuning that achieved 80% sensitivity & 90% recall
 - Proposed business strategies & improvement
- Help International - Poverty Analysis** | *Python, NumPy, SciPy* | [Github](#) May. 2020
- Implemented extensive Exploratory Data Analysis
 - Implemented Silhouette & Elbow analysis to decide cluster sizes
 - Used K-Means clustering with Hierarchical Clustering techniques to determine which countries need the most assistance
 - Identified key features for the NGO to focus on & top 5 countries to target immediately