

# Hemansh Anand

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🔗 Link to my Portfolio Website   🐙 Github: hemansanand   🏷 Sponsorship Not Required

## PROFESSIONAL SUMMARY

Data loving analytical thinker, passionate about data science with a background in Computer Science and Statistics. Drives the adoption of data-driven decisions in the day-to-day operations of the organization by leveraging expertise in Data Science and Machine Learning.

## PROFESSIONAL EXPERIENCE

### Data Science Intern

May 2021 – Aug 2021 | Gurgaon, India

Radio Frequency Systems(RFS) India Pvt. Ltd

- Designed, built and maintained data pipelines and systems for data ingestion from **APIs**
- Teamed with 4 interns to design an **end-to-end ML pipeline** for pre-processing (raw) client data, feature engineering, feature selection, model training and testing
- Updated data streamlining processes, that resulted in a **27% redundancy reduction**
- Built data models and maps within **AWS** environment to generate meaningful insights from customer data, which resulted in enhancing sales efforts by **12% (revenue augmentation ~\$300K, annually)**

### Energy Data Analyst

Sep 2020 – Dec 2020 | Faridabad, India

National Thermal Power Corporation(NTPC) India Ltd

- Collected, collated and normalized existing consumption, performance and operational **data of over 120k rows**
- Transformed raw data into MySQL with a **custom-made ETL application** to prepare unruly data for machine learning
- Developed machine learning models with **Python** and **scikit-learn**, which enabled the prediction of fuel usage with **95% accuracy**.
- Successfully **increased the savings in fuel costs by 25%** using proprietary software, modelling tools and specialist information

### Machine Learning Intern

May 2018 – Aug 2018 | Noida, India

Tech Mahindra

- Built **recommendation solution** to provide personalized service to enhance user experience & improve ROI
- Implemented **Principal Component Analysis(PCA)** to identify the key business **KPIs**
- Used collaborative filtering to build a recommender system with Python, leading to augmentation of **150% repeat orders**

## EDUCATION

### MSc Data Science

Feb 2021 – Feb 2022

University of Surrey

Guildford, United Kingdom

Relevant Modules -Statistics, Machine Learning, Big Data, Natural Language Processing, Cloud Computing

### MSc Applied Economics and Statistics

Sep 2019 – Sep 2020

University of Strathclyde

Glasgow, United Kingdom

### B.Tech Electronics and Communication Engineering

Aug 2015 – Aug 2019

Jaypee Institute of Information Technology

Noida, Delhi (NCR), India

## TECHNICAL SKILLS

**Languages & Aptitudes** (Python, C, R, scikit-learn, TensorFlow, NLTK, libsvm, pyTorch, NumPy, Pandas, Unix)

**Data Visualization** (matplotlib, Seaborn, Plotly, Tableau) • **Regression** (Logistic, Linear, Random Forest)

**Classification** (K-NN, SVM, Random Forest, Naive Bayes) • **Neural Networks** (ANN, CNN, LSTM-RNN)

**Database** (MySQL, NoSQL, MongoDB) • **Web Development** (HTML, CSS) • **Hardware** (RaspberryPi, Arduino)

**Frameworks & Cloud Services** (Flask, Amazon Web Services (AWS), Google Cloud Platform(GCP), Azure, Heroku)

## DATA SCIENCE PROJECTS

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### Stock Trading Chatbot

Sep 2021 – present

Chatbot | Virtual Assistant | Conversational AI

- **Primary Goal:** Build a Stock Trading Assistant which analyses stocks and gives Buy/Sell recommendations
- **Proposed Solution:** The bot analyses stocks on 6 Technical Indicators and Market Sentiment Analysis
- **Result:** *Project under Development Phase*
- **Tools:** Dataset - Yahoo Finance | Rasa | Python | TensorFlow | Alpaca API | Flask

### Facial Expression Recognition using Deep Learning

Aug 2021

Classification Problem | Computer Vision

- **Primary Goal:** Build a web app to categorize facial expressions into seven different emotions
- **Solution:** Trained a CNN in Keras from scratch to recognize facial expressions in real-time
- **Result:** Achieved an accuracy of **73.85%**
- **Tools:** Dataset - FER 2013 Data | CNN | Python | TensorFlow | OpenCV | Keras | Flask

### Movie Genre Prediction using Natural Language Processing

Jun 2021

Multi-Label Classification Problem | NLP

- **Primary Goal:** Build an interactive Web App to predict movie genres based on their plot descriptions
- **Solution:** Applied NLP techniques and Machine Learning Algorithms to classify movies as one or more genres
- **Result:** Achieved Precision Score of **88%** and Recall Score of **82%** using One vs Rest Classifier with Multinomial Naive Bayes using TF-IDF plot vectors (min\_df=20) and Min-Max Scaling
- **Tools:** Dataset - IMDB Movies | Python | SQL | Bag of Words | Standard Scaling | Logistic Regression | Flask

### Airlines Passenger Forecasting

May 2021

Regression Problem | Time Series

- **Primary Goal:** Develop a model to predict the number of international airline passengers for next 10 years
- **Solution:** Time Series Forecasting with **ARIMA** model in Python
- **Result:** Mean Absolute Error(MAE) of **10.05%** achieved.
- **Tools:** Dataset - Air Passengers By Kaggle | Python | ARIMA | Matplotlib | Flask

### Handwritten Digit Recognition

Apr 2021

Classification Problem

- **Primary Goal:** Build an efficient model to recognize handwritten digits
- **Solution:** Trained a CNN in Keras from scratch to recognize handwritten digits
- **Result:** Achieved an accuracy of 99.52%
- **Tools:** Dataset - MNIST Database | CNN | Python | TensorFlow | Keras

### Customer Segmentation with Python

Mar 2021

Unsupervised Learning | Clustering

- **Primary Goal:** Perform customer segmentation to help businesses understand their target audience
- **Solution:** Built a K-Means clustering algorithm for customer segmentation in Python
- **Result:** Successfully built a K-Means clustering model analyzed the behaviour of individuals in each cluster
- **Tools:** Dataset - Mall Customers Data | K-Means Clustering | Python | scikit-learn | NumPy | seaborn | matplotlib

## CERTIFICATIONS AND COURSES

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### Data Scientist Professional Certificate

Data Camp

Aug 2021

### Machine Learning by Stanford University

Coursera

Jul 2020

### Python for Data Science

IBM

Feb 2020

### Automate the Boring Stuff with Python Programming

Udemy

Oct 2019

### Embedded Systems and IoT

Optimus Research Labs

Apr 2016