Mihir Ojha

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EDUCATION

• **Simon Fraser University** — June, 2022
  Bachelor of Science - Data Science — *Burnaby, Canada*
    - Relevant Coursework: Operating Systems, Data Structures, and Algorithms, Statistics, Machine Learning, Database Management

EXPERIENCE

• **Jain University** — Remote, Canada
  Machine Learning Research Assistant — *August 2022 - Present*
    ◦ Conducted data analysis and pre-processing on a large Protein bank dataset containing over 15,000 rows and 5,000 target classes.
    ◦ Implemented and compared multiple machine learning and deep learning algorithms, including Random Forest, XGBoost, and Neural Networks, to predict protein structures and classify proteins with 95% accuracy on the test dataset.
    ◦ Demonstrated strong ML expertise and effective communication by presenting results through interactive PowerBI visualizations to the project supervisor.
    ◦ Proactively developed skills by exploring new algorithms and techniques to drive team success.

• **Chartered Professional Accountants of British Columbia** — Burnaby, Canada
  Data Scientist Intern — *Jan 2022– April 2022*
    ◦ Utilized Python skills to implement effective data cleaning and pre-processing techniques on a large dataset containing information on over 50,000 members, resulting in improved data quality.
    ◦ Leveraged Power BI and ArcGIS (geographic information system) to create impactful visualizations and maps that revealed key target areas for recruitment and demographic insights.
    ◦ Applied advanced regression algorithms, including ridge, KNN, lasso, and Linear, to accurately predict the number of members that would join over the next five years.
    ◦ Presented strategic recommendations to the Vice President of CPABC, including a 5-year plan for resource allocation, recruitment, and data storage. My suggestions resulted in a reduction of 50 hours per week and a cost savings of 15-20% in database management.

SKILLS

• **Languages**: Python, R, SQL
• **Machine Learning**: Supervised Learning (Regression, Decision Trees, Random Forest, Gradient Boosting, XGBoost), Unsupervised Learning (k-means Clustering, Dimensionality Reduction, PCA), Neural Networks (ANN, CNN), Deep Learning, Hyperparameter Tuning
• **Frameworks**: Scikit-learn, NLTK, SpaCy, TensorFlow, Keras
• **Data Analysis and Modeling**: Pandas, Numpy, SciPy, Data Wrangling, Data Cleansing, Data Preprocessing, EDA
• **Data Visualisation**: Python's Matplotlib, Seaborn, Plotly, Microsoft Power BI, and Tableau
• **Extra**: Git version-control, GitHub, HTML, CSS, Agile, Scrum, Linux, Command Line Interface, Heroku, Railway, Streamlit

PROJECTS

• **Telecom Churn Prediction (Classification, EDA, Data cleaning, Data pre-processing, Streamlit, Railway)**:

  Developed a predictive model to analyze customer behavior and predict churn using Python and machine learning techniques. Deployed the model as a Streamlit app and hosted on Railway, achieving an accuracy of 95% on the test dataset.

• **Hate Speech Classification via Tweets (NLP. Spacy, NLTK, Deep learning, Sentiment Analysis, Streamlit, Railway)**:

  Developed an NLP-based hate speech classifier for tweets using Python and various ML algorithms (Naive Bayes, Decision tree, Random Forest, SVM, deep learning), achieving 96% accuracy. Deployed as a Streamlit app and hosted on Railway.

• **Spotify playlist recommendation (Spotipy API, PCA, Dimensionality reduction, K-means clustering)**:

  Developed a music recommendation system using Spotify's API (Spotipy) and Python, utilizing K-Means Clustering. Provided links to the 11 playlists to the end-users. Achieved a high user satisfaction rate by providing personalized and diverse playlists.