Jyoti Bhandari

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EDUCATION

University of New Haven | Master of Science in Data Science (GPA: 4.0) | Graduation Date: December 2023 | West Haven, CT
Tribhuvan University | B.E. in Computer Engineering (GPA: 4.0) | Graduation Date: October 2018 | Kathmandu, Nepal

SKILLS

- Languages: Python (Numpy, Pandas, PyMc3, Matplotlib, Seaborn, Dash by Plotly, Django, Flask, Scikit-Learn, TensorFlow, Keras, PyTorch) SAS, R, PL/SQL, MongoDB, Linux Bash. Database: PostgreSQL, SQL
- Big data technologies: Spark, Pyspark, Hadoop, Databricks, Apache Airflow, Dagstar
- Tools: SQL Tool, SQL Developer, Bitbucket, JIRA, Jenkins, MicroStrategy, Power BI, Tableau, DataRobot AI Platform
- Cloud Computing: Amazon Web Services (AWS), EMR, Redshift, Glue, EC2, AWS Lambda, Step Functions
- Soft skills: Effective Communication, Team Collaboration, Adaptability, Problem-Solving, Leadership and Initiative, Time Management

WORK EXPERIENCE

University of New Haven | Chief Data Scientist | May 2023 – Dec 2023 | West Haven, CT

- Reduced admissions application processing time by 25% by developing a model predicting the CGPA, built ML-OPS **data pipeline** using **Apache Airflow** with **PostgreSQL** database, within **AWS** EC2 instance, and trained Model using Random Forest Regressor generating 82.7% accuracy rate.
- Translated complex machine learning results into accessible presentations, enabling strategic decision-making by leadership.
- Minimized transcript review time by implementing a **deep learning model** for Optical Character Recognition (OCR), specifically leveraging Document AI which efficiently transforms PDF transcripts into Excel files, preparing them for seamless integration into the CGPA prediction model.
- Improved admission processes by conducting targeted **A/B tests** to optimize specific aspects of the workflow. These tests, centered on user behaviors and preferences, led to a 15% increase in enrollment rates.
- **Managed a cross-functional team** of 6 data engineers, 3 data analysts, and 3 data scientists: created work plans and timelines and ensured documentation of codes and changes using version control methods in GitHub to ensure traceability and collaboration resulting in 100% on-time project deliveries.

University of New Haven | Data Analyst | January 2023 – May 2023 | West Haven, CT

- Accomplished a 15% improvement in admission processes' efficiency by developing a causal inference model to understand whether specific changes in the admission process directly contribute to improvements or declines in outcomes.
- Facilitated admissions strategic planning through **exploratory data analysis (EDA)**, feature extraction through **correlation analysis**, **ad-hoc analysis**, and **hypothesis testing**, revealing a notable annual 10% increase in fall semester applications.
- Improved decision-making processes, by creating **Power BI** dashboards consolidating graduate admissions metrics and **KPIs**, such as application trends, acceptance rates, and demographic insights, leading to a 20% improvement in application review efficiency.

Cotiviti Nepal Pvt. Ltd | Software Engineer I (Data Analyst) | February 2019 – November 2021| Kathmandu, Nepal

- Improved risk management through data analysis within the insurance and U.S. healthcare domains, focusing on eligibility, claims, prescription claims, and wellness data, measured by a 20% reduction in errors and discrepancies in insurance claims processing, achieved by implementing automated data validation checks.
- Achieved a 20% boost in data ingestion efficiency by leading the design and implementation of streamlined **ETL pipelines**, using PL/SQL and Oracle Data Integrator (ODI).
- Reduced manual effort by 30% by **automating** the solutions for identifying gaps, variances, trends, and patterns in data, and expediting insights generation using advanced PL/SQL queries (window functions, procedures, nested queries).
- Reduced the data analysis time by 20% by developing a new report for the team using **MicroStrategy** and **Tableau** and proficiently managed the projects using JIRA.

PROJECTS

- **Data Science Job Hunt**: Built an interactive dashboard using Dash by Plotly to analyze Data Science job opportunities in the US, and predict salaries using Linear Regression, and employee retention using XG Boost Classifier.
- **Chatbot Recommending Products**: Developed a Discord chatbot using CNN, K-means clustering, KNN algorithm, and VGG16 model to recommend products from the Flipkart database based on visual similarity.
- **NutriBot**: This Natural Language Processing (NLP) project is a Discord bot, finetuned on Large Language Model BERT, for personalized recipe recommendations and nutritional analysis as per user's input.
- **Walmart Sales Data Analysis**: Leveraging advanced time series forecasting methods like ARIMA, a robust predictive model was constructed to enhance Walmart's weekly sales forecasting accuracy by 15%. This data-driven approach optimized inventory management and illuminated temporal trends impacting sales patterns.