INDRA KIRAN REDDY BONTHU

Buffalo, New York 14214
716-544-8132 indrakir@buffalo.edu linkedin.com/in/indrakiranreddybonthu

Education

University at Buffalo, State University of New York **Aug 2023 - Dec 2024**
Masters of professional studies in Data Sciences and Applications - 4.0/4.0 *Buffalo, New York*

Amrita Vishwa Vidyapeetham **Sep. 2017 – May 2021**
Bachelor of Science in Electronics and Communication - 7.77/10 *Coimbatore, Tamil Nadu*

Technical Skills

Programming Languages: Python, R, SQL, C#, .Net
Machine Learning & AI: Scikit-learn, TensorFlow, Keras
Data Visualization: Tableau, Power BI, Matplotlib, Seaborn
Database: Oracle, MySQL, Azure CosmosDB, MongoDB, sqlite
Cloud Platforms: Azure
Data Analysis: Pandas, NumPy, Excel
Natural Language Processing(NLP): NLTK, Word2Vec, TF-IDF, Bag of words, Bag of N-grams, Count Vectorizer
Web Technologies: ASP.NET MVC, Blazor, REST APIs, HTML/CSS, JavaScript
Version Control: Git, GitHub
Developer Tools: VS Code, Jupyter Notebook, Spyder, Google Colab

Experience

Eitacies INC **Santa Clara, CA**| ***May 2024 – Aug 2024***
Machine Learning Engineer Intern

- **Developed real-time detection models** using Python, NLP, and Machine learning techniques to flag inappropriate content(abuse, sexting, hate speech, etc.) in conference calls, achieving an accuracy of **93%**
- Built end-to-end **data pipelines** to analyze text and audio data, ensuring real-time alerts and insights during calls.
- Integrated machine learning models with **MongoDB**, enabling efficient data storage and retrieval for analysis.
- Collaborated with cross-functional teams to optimize system performance and accuracy by **15%** through hyperparameter tuning and regularization techniques.

Tata Consultancy Services **Bangalore, India**| ***June 2021 – July 2023***
Web User Interface Developer *Jan 2022 – July 2023*

* Developed and optimized **scalable web applications** using ASP.NET MVC and Blazor, improving user interface performance by **20%**.
* Integrated data from **cloud-based services** such as Azure Table Storage and Azure CosmosDB, streamlining backend processes.
* Designed and implemented **RESTful APIs** to facilitate seamless data exchange, reducing system response time by **30%**.
* Utilized **Azure Data Factory** to implement **ETL processes** for **migrating data** from legacy applications to **Azure CosmosDB** for a new application, ensuring smooth **data integration** and real-time updates.

Assistant System Engineer *Sep 2021 – Dec 2021*

* Automated the transformation of CSV files to JSON format using **Azure Function Apps**, enabling data transfer through **Azure Service Bus** and storing data in **Azure CosmosDB**, which improved data processing time by **25%**.

Projects

COVID-19 Data Integration and Visualization System | *Jupyter Notebook, Python, Sqlite3, Visualization* **Dec 2023**

* **Parsed raw data** from CSV files using file handling techniques and **created normalized tables** in a **SQLite database**.
* Executed **complex SQL queries** with joins and retrieved data using **Pandas** for **data analysis**.
* Performed **Exploratory Data Analysis (EDA)** utilizing **ipywidgets** to develop an **interactive user interface**.
* **Visualized data distribution** of COVID-19 tests, confirmed cases, hospitalized patients, and deaths using **pie charts** and **box plots**.

End-to-End Database Design and Implementation Project | *Oracle, SQL, Normalization* **Dec 2023**

* **Analyzed business requirements** to identify **entities, attributes, and relationships** for database design.
* Designed and implemented a fully normalized database using **Entity-Relationship (ER) modeling**.
* Established **primary and foreign keys** to maintain **data integrity** and **eliminate redundancy**.
* **Implemented SQL table definitions** and conducted **comprehensive testing** to ensure **data consistency** and performance.

Model Building Projects Using Mathematical Intuitions(ML) | *Python, Jupyter Notebook, OOPS* **Jan 2024-Mar 2024**

- Developed a **Linear Regression** model for the **California housing dataset**, calculating the **R^2 score** to evaluate model accuracy.
- Developed and implemented a D**ecision Tree** algorithm to classify data from the Iris dataset, achieving an impressive accuracy rate of **96%**, demonstrating strong proficiency in machine learning techniques for predictive analytics.
- Built a **Neural Network** from scratch, implementing **forward propagation** and **backward propagation** for **model training** without using external libraries..