# RIDDHI GOSWAMI

+971502563195 | f20210017@dubai.bits-pilani.ac.in | ⌕ in

## PROFILE SUMMARY

Computer Science Engineering student with a CGPA of 9.974 and recipient of the UAE Golden Visa for 'Distinguished Student.' Passionate about Data Science, IoT, and ML/AI applications, with leadership experience in Google Developer Student Club and IEEE. Adept at problem-solving, database management, and leading tech workshops. Skilled in teamwork, leadership, and simplifying complex concepts. Actively seeking internship opportunities to contribute my technical expertise and collaborative spirit.

## EDUCATION

**B.E. Computer Science Engineering & Minor in Data Science**
BITS Pilani, Dubai Campus

**CGPA**: 9.974
**Relevant coursework**: Machine Learning, Foundations of Data Science, AI, Data Mining, Object Oriented Programming
**Academic Accolades**: First in my batch (2023-2024)

## TECHNICAL SKILLS

| | |
|---|---|
| **Programming** | Python, Javascript, Java, C, C#, .NET |
| **Databases** | MySQL, SnowflakeSQL |
| **Data Analysis** | Pandas, Polars, MS Excel |
| **Data Visualisation** | Plotly, PyGWalker, Matplotlib, Seaborn |
| **Dashboards** | PowerBI, Dash, Streamlit, PyShiny |
| **AI & ML** | Numpy, Scipy, Sklearn, OpenCV, Spacy, NLTK, Tensorflow, Keras |
| **Electronics & IoT** | Arduino, ROS, ROS2 |

## WORK EXPERIENCE

**Revenue Optimization and Distribution Intern**                    JUN, 2023 – AUG, 2023
Emirates Group HQ, Dubai

- Developed apps using **Plotly**, **Dash**, and **Streamlit** for data visualization and analysis.
- Used **Snowflake cloud database** to store, query, and handle large-scale datasets efficiently.
- Individual **ML** Project: Handled a **500M** row dataset, optimizing and parallelizing code. Achieved prediction of flight sell-out dates with a mean absolute error of less than two days.

**Software Developer – Structure Team**                    JUN, 2024 – AUG, 2024
Jacobs, Dubai

- Developed apps using **.NET 8.0 WPF**, **PyShiny** for handling calculations, and visualisations and kept the user interface dynamic and responsive to inputs. Understood how custom components can be built by integrating **Grasshopper API**
- Explored **NLP** models like **Seq2Seq**, **BERT**, and **fuzzy string matching** to enforce corporate naming conventions
- Gained insight into **Azure DevOps**, **Agile** management framework, using **design patterns** and **refactoring**

# CERTIFICATIONS

- HarvardX CS50's Introduction to Artificial Intelligence with Python (Jul 2024)
- Neural Networks and Deep Learning, issued by DeepLearning.AI Academy (Jan 2024)
- Structuring and Managing Machine Learning Projects, issued by DeepLearning.AI Academy (Jan 2024)
- Microsoft Learn AI Skills Challenge (Aug 2023)
- HarvardX CS50x Professional Certification (Jan 2023)
- Postman API Student Expert + Postman Student Leader

# PROJECTS

### Voice Controlled Mobile Bot (Cross Department Research Funded)

This project integrates Natural Language Processing (**NLP**) and the Robot Operating System (**ROS**) to facilitate user interaction with a Turtlebot3, ROSbot XL through voice commands. It employs the **WhisperAPI** and **GPT-4o** to process and understand natural language inputs. It uses **Elevenlabs** for dynamic text-to-speech conversion, demonstrating how the robot can respond to commands vocally based on the input received.

### Entity-Relation Identification from Documents

This project taught me how to work with **Spacy** and the Natural Language Toolkit (**NLTK**) to extract entity relations from text paragraphs. The primary objective is to construct detailed knowledge graphs that capture the relationships between various identified entities. These knowledge graphs serve as a foundation for translating complex entity relationships, including many-to-one and one-to-many associations, into formal specifications in the **Isabelle-HOL** code.

### Anchor Residue Identification

This project involved the identification and analysis of anchor segments within transcription factor binding sites using data from both in vitro and in vivo experiments. Specifically, I used datasets from UniProbe and CIS-BP databases, which include in vitro data from protein-binding microarrays and SELEX, as well as in vivo data from ChIP-Seq. Through this, I have gained experience in **computational biology**, **algorithm** development, **data analysis**, and bioinformatics **web development**.