A
SUMMER INTERNSHIP REPORT
On

Microsoft Data & AI Skills Internship Program 2025

Submitted

by

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(221430131005)

Guided By:
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ICOMPUTER SCIENCE AND ENGINEERING DEPARTMENT

A Summer Internship Submitted to Gujarat Technological University In fulfillment for the award of degree of Bachelor of Engineering in Information Technology/Computer Science and Engineering

ACADEMIC YEAR – 2025-2026

NEW L. J. INSTITUTE OF ENGINEERING AND TECHNOLOGY

Pakwan, Behind Rajpath Club Gate to Sindhu Bhavan Road,
Sarkhej - Gandhinagar Highway,
Ahmedabad, Gujarat 380054

CERTIFICATE

This is to certify that the Internship report submitted along with the project entitled Internship in Microsoft Corporation (India) Pvt Ltd has been Completed by **Anjali Nirav Shah** under my guidance in complete fulfilment for the Bachelor of Engineering in Information Technology Branch, 7th Semester of Gujarat Technological University, Ahmadabad during the academic year 2025-26.

Date:

Place: NEW LJIET, Ahmedabad.

Signature and Name of Guide

Prof. Ms.Alpa Rupala

Assistant Professor,

CSE Department,

NEW LJIET (143), Ahmedabad.

Signature and Name of H.O.D.

Dr. Gayatri Pandi

CSE Department,

NEW LJIET (143), Ahmedabad.

Seal of Institute

DECLARATION

I hereby declare that the Internship report submitted along with the Internship entitled Internship in Microsoft Corporation (India) Pvt Ltd submitted in Complete for Bachelor of Engineering in Computer Science and Engineering branch to Gujarat Technological University, Ahmedabad, is a bonafide record of original Internship work Completed by me at Microsoft Corporation (India) Pvt Ltd under the supervision of Ritesh Gupta and that no part of this report has been directly copied from any students' reports or taken from any other source, without providing due reference

Name of Student **Signature of Student**

Anjali Nirav Shah

ACKNOWLEDGEMENT

I wish to express my sincere gratitude to my Ritesh Gupta for continuously guiding me at the company and answering all my doubts with patience. I would also like to thank Dr Gayatri S Pandi(H.O.D. of CSE Department) for motivating me every time whenever I get confused, I would also like to thank my Ms. Alpa Rupala for helping me through my internship by giving me the necessary suggestions and advices along with their valuable co-ordination in completing this Internship.

I also thank my parents, friends and all the members of the family for their precious support and encouragement which they had provided in completion of my work. In addition to that, I would also like to mention the company personals who gave me the permission to use and experience the valuable resources required for the Internship.

Thus, in conclusion to the above said, I once again thank the staff members of Microsoft Corporation (India) Pvt Ltd for their valuable support in completion of the Internship.

Thank You

Microsoft Data & AI Skills Internship Program 2025

Enrollment No.: 221430131005

Student Name:Anjali Nirav Shah

NEW L. J. Institute of Engineering and Technology (143)

Semester: VII,

Computer Science and Engineering Department

Abstract

The Microsoft Data & AI Skills Internship Program 2025 was a virtual internship organized in collaboration with GTU. It offered a total of 78 hours of learning, including 64 hours of Skill-Based Training and 14 hours of post-training assessments. The internship focused on building practical skills through live online sessions, quizzes, and final evaluations.

The training covered important topics such as Azure AI Fundamentals, Natural Language Processing (NLP) using Azure AI Language, Generative AI concepts, and Power BI for Data Analysis. Each session helped me understand how Microsoft's AI and data tools work in real-world scenarios. Overall, this internship gave me a valuable learning experience and a solid base to grow in the fields of AI and data analytics.

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CHAPTER: 1

INTRODUCTION

1.1 Introduction

I had the opportunity to pursue my summer internship under the Microsoft Data & AI Skills Internship Program 2025, beginning on July 2, 2025. The internship focused on training students in various Microsoft technologies and platforms, primarily related to Azure AI, Machine Learning, Natural Language Processing (NLP), and Power BI. The internship was conducted in virtual mode and was designed to enhance participants' practical knowledge through Skill-Based Training (SBT), quizzes, and post-training assessments.

The internship was organized by **Microsoft Corporation (India) Pvt. Ltd.**, a global leader in technology and innovation. The entire internship comprised **78 hours**, including **64 hours of instructor-led SBT** and **14 hours of post-training assessments**.

1.2 Company Profile

- **Company Name:** Microsoft Corporation (India) Pvt. Ltd.
- **Corporate Address:** Prestige Business Park, 33, Marathahalli - Sarjapur Outer Ring Road, Bellandur, Bengaluru, Karnataka – 560103
- **Company Location:** Bangalore, Karnataka
- **Trainer/Coordinator Name:** Mr. Ritesh Gupta
- **Position:** Training Coordinator
- **Internship Mode:** Virtual (Online Instructor-led sessions)
- **Internship Duration:** 2nd July 2025 onward

- **Internship Title:** Summer Intern – Data & AI Skills Track
- **Platform/Technology:** Microsoft Azure AI, Machine Learning, Power BI, Azure Infrastructure

1.3 Company Products

Microsoft offers a wide range of technology products and services, including:

- **Windows OS** – Leading desktop and server operating systems
- **Microsoft 365** – Productivity tools like Word, Excel, PowerPoint, Outlook
- **Microsoft Teams** – Online collaboration and communication platform
- **Azure** – Cloud computing platform with AI, machine learning, and infrastructure services
- **Power BI** – Data visualization and business intelligence tool
- **Visual Studio & GitHub** – Developer tools and source code management
- **X box** – Gaming consoles and services
- **Copilot & Azure Open-AI** – AI-powered productivity and development tools

1.4 Company Mission and Vision

Mission:
"To empower every person and every organization on the planet to achieve more."

Vision:
To democratize AI, making it accessible and beneficial for everyone.

CHAPTER: 2

Role and Responsibilities During Internship

2.1 Objective

The objective of this internship was to gain practical experience in Artificial Intelligence (AI), Natural Language Processing (NLP), Generative AI, and Data Visualization using Microsoft's cloud platform. The program focused on equipping students with industry-relevant skills through hands-on training using Microsoft Azure services and Power BI. The internship culminated in a final project where I built an interactive dashboard using Power BI based on a real-world dataset (SalesData.xlsx).

2.2 Introduction to Microsoft Azure AI

Microsoft Azure AI is a suite of intelligent services that enables developers and data scientists to build smart applications using pre-trained and customizable AI models. It includes services like:

- Azure Cognitive Services (for vision, speech, language, and decision-making)
- Azure Machine Learning (for building, training, and deploying ML models)
- Azure AI Language (for NLP-based solutions)

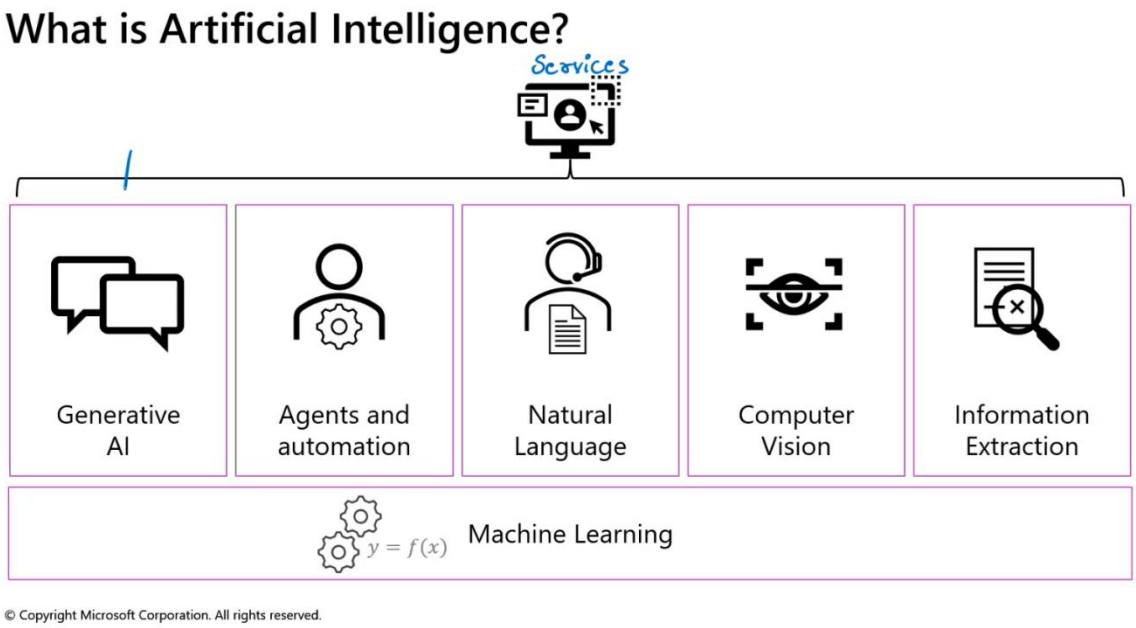
In this learning path, the key topics included is as follow:

- Fundamentals ofAI and ML:

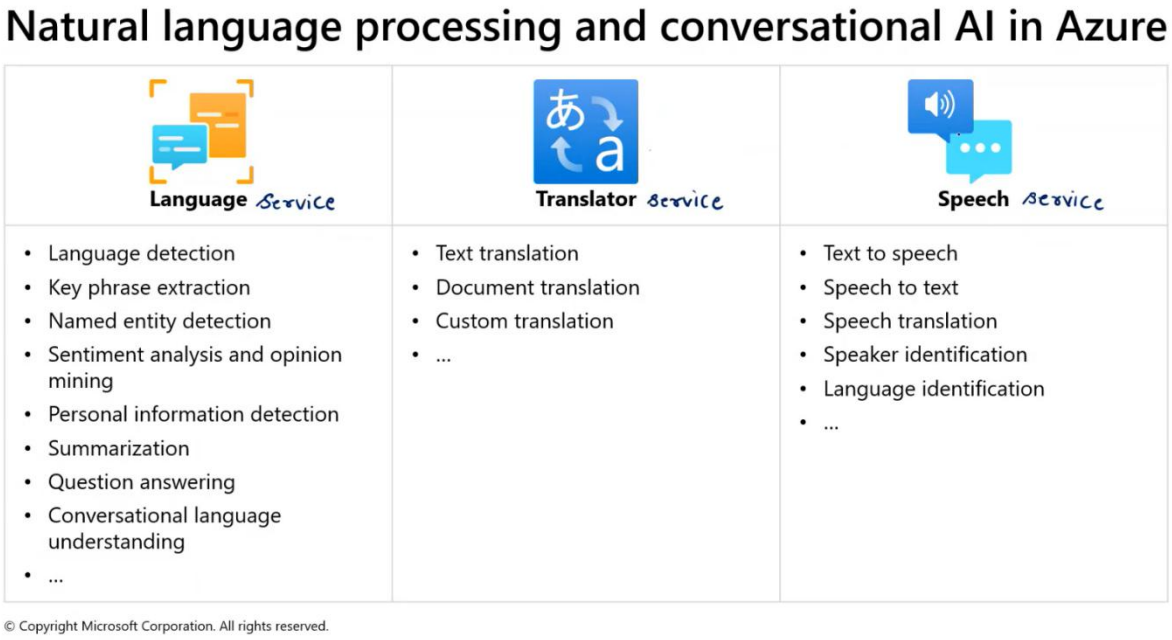
1. Applications of AI in various industries
2. Overview of Azure Cognitive Services (like speech ,vision, and language APIs)
3. Building simple AI solutions on the cloud
4. Ethical and responsible AI development

Through this internship, I explored various AI capabilities of Azure:

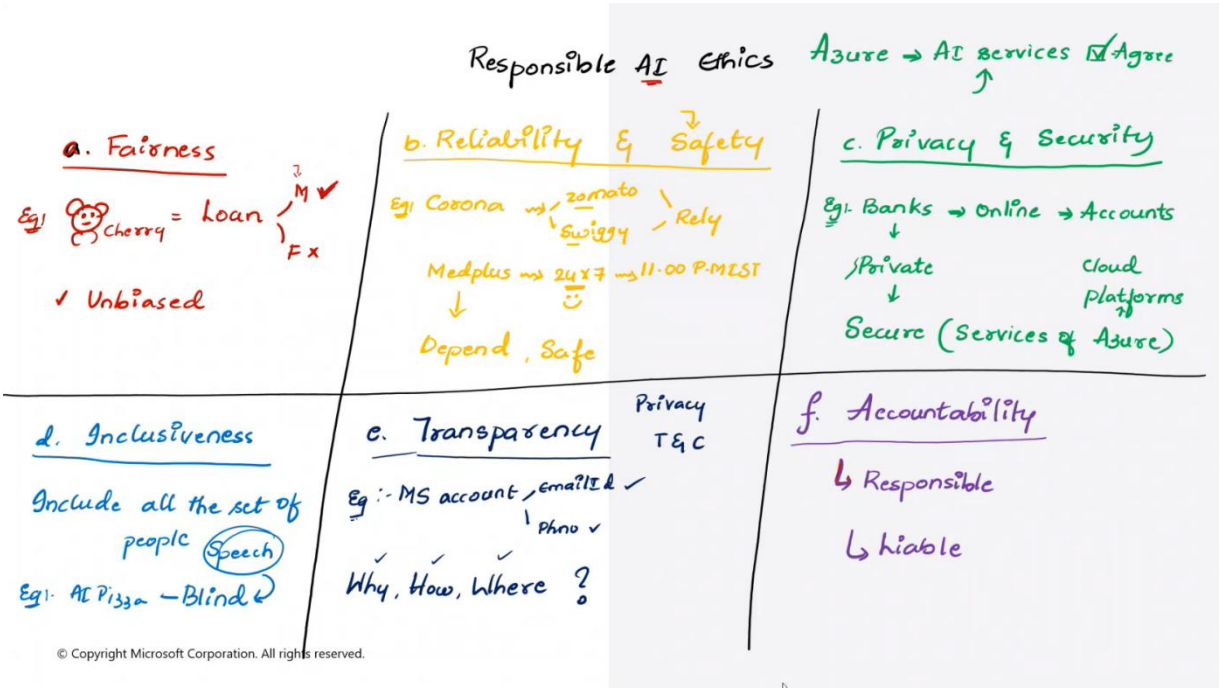
- Understanding core AI/ML concepts



- Explored NLP tasks like sentiment analysis and summarization



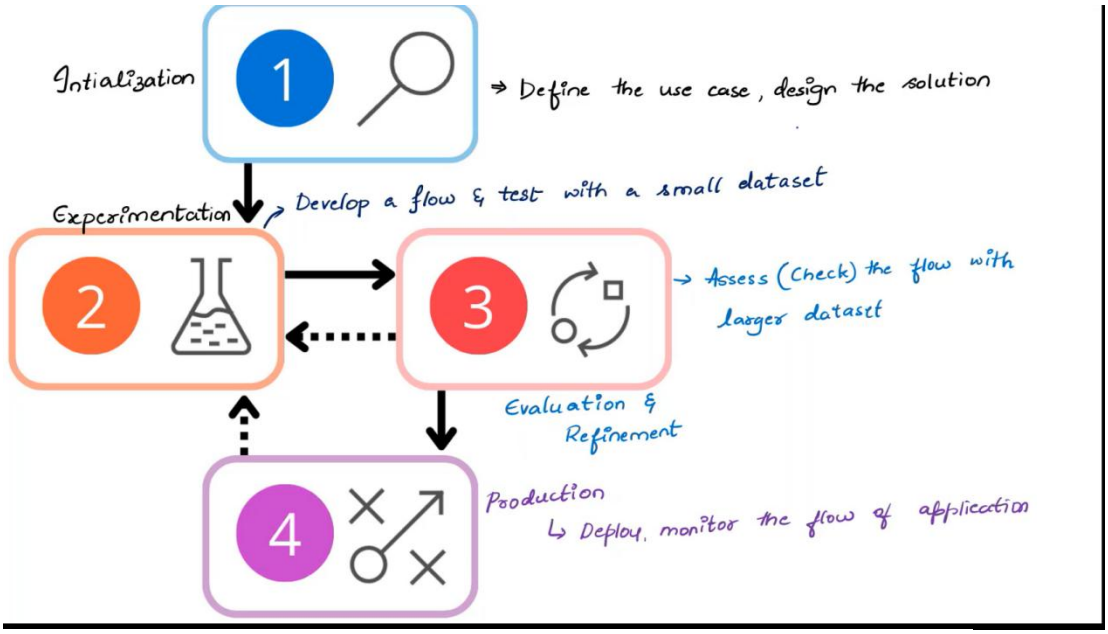
- Deploying generative AI models (like GPT and BERT) in Azure ML Studio
- Using no-code tools (Azure Studio)
- Gained ethical and responsitlity factors of conducts AI



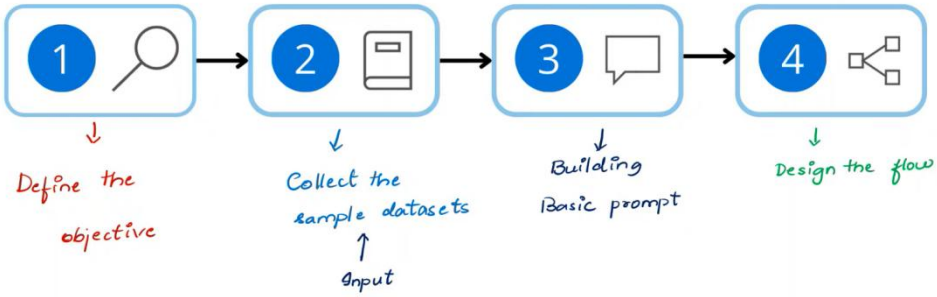
This learning path prepared me for the Microsoft Certified: Azure AI Fundamentals (AI-900) exam.

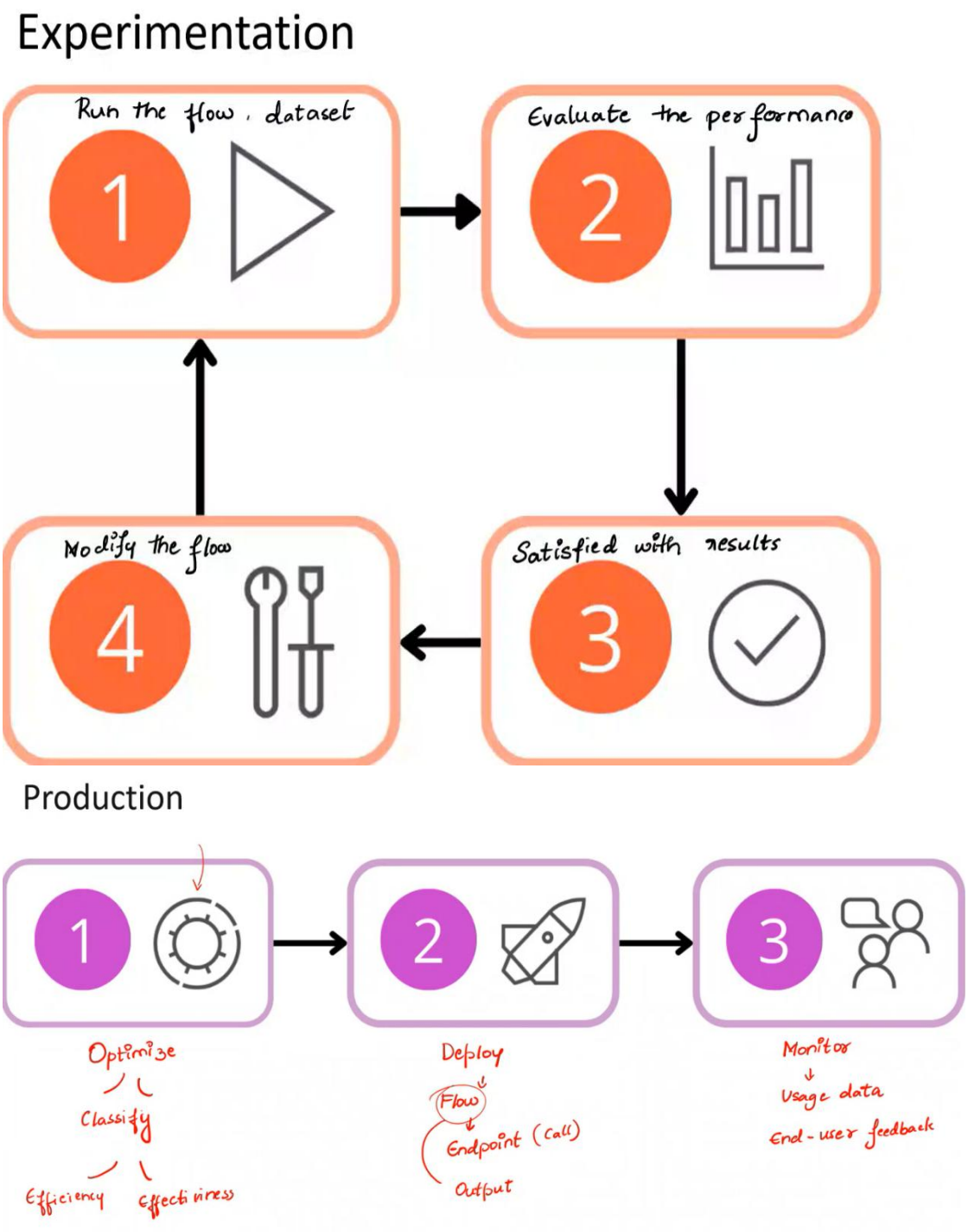
2.3 **Understand Generative AI models in Azure Machine Learning**

- Azure Machine Learning is a cloud-based platform and it provides a comprehensive set of tools to handle the entire machine learning lifecycle from data preparation and model training to deployment and monitoring.
- Users can work with popular machine learning frameworks such as TensorFlow, PyTorch, and Scikit-learn.
- Through this internship, I explored foundation of generative AI:
  - Generative AI models are based on foundation models like GPTs and these models are pre-trained on massive datasets and can perform a wide variety of tasks through prompting or fine-tuning.
  - Azure AI Foundry is a platform used for building, testing, deploying, and managing solutions, primarily in generative AI development.
  - Explored how to optimize the model performance through prompt engineering
    - In this, the major focus was to understand the lifecycle of LLM(Large Language Model)
    - The phases included are as shown in the figure:



Initialization




Experimentation
Run the flow, dataset
1
Evaluate the performance
2
Modify the flow
4
Satisfied with results
3
Production
1
2
3
Optimize
Classify
Efficiency
Effectiveness
Deploy
Flow
Endpoint (call)
Output
Monitor
Usage data
End-user feedback

2.4 **Introduction to Power BI**

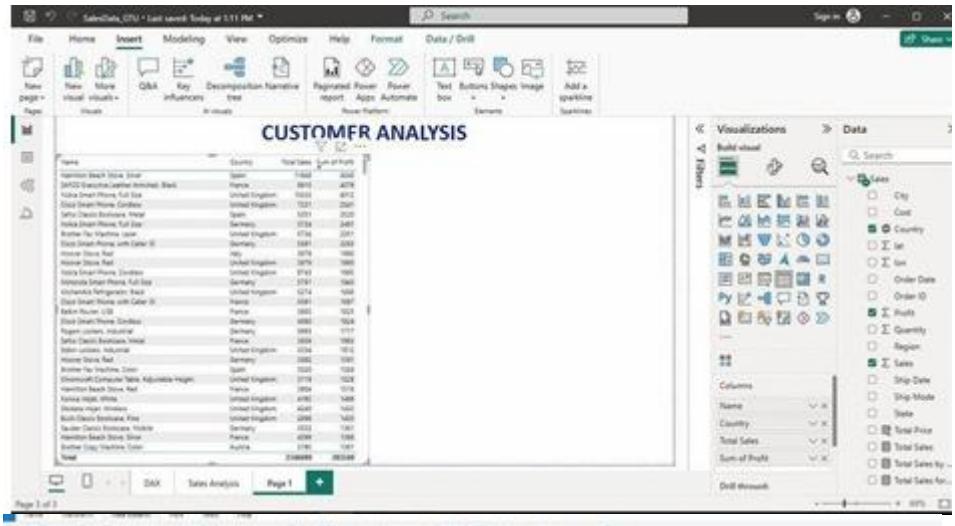
Microsoft Power BI is a leading business intelligence tool used for analyzing and visualizing data. It allows users to:

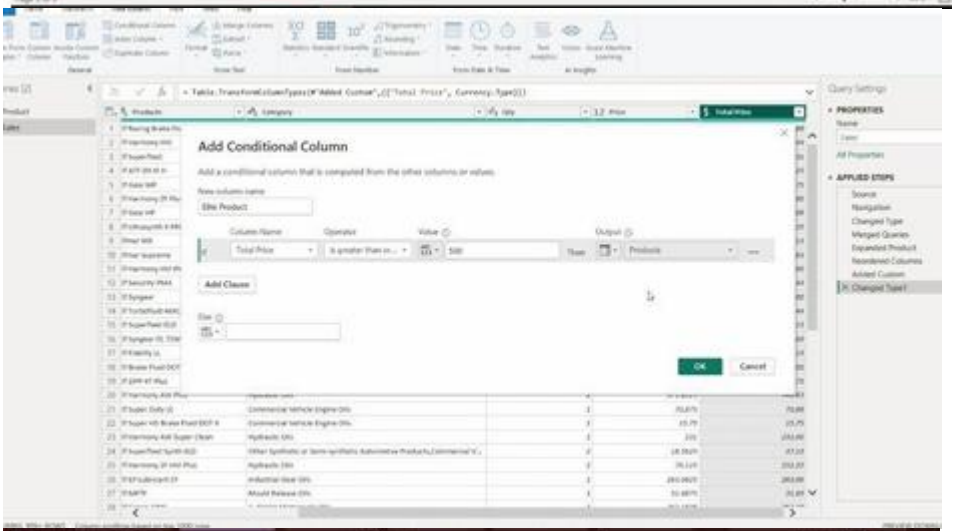
- Connect to multiple data sources
- Clean and model data
- Create interactive dashboards and reports

✧ In the internship, I used Power BI to develop a complete sales analysis dashboard. I worked with real-world data (SalesData.xlsx), built DAX formulas, and created a fully interactive .pbix file that reflects sales trends and business insights.

✧ Power BI played a crucial role in turning raw data into visually meaningful stories for decision-making.

✧ Explored several design issues and ways to prevent that.


CUSTOMER ANALYSIS
Visualizations
Data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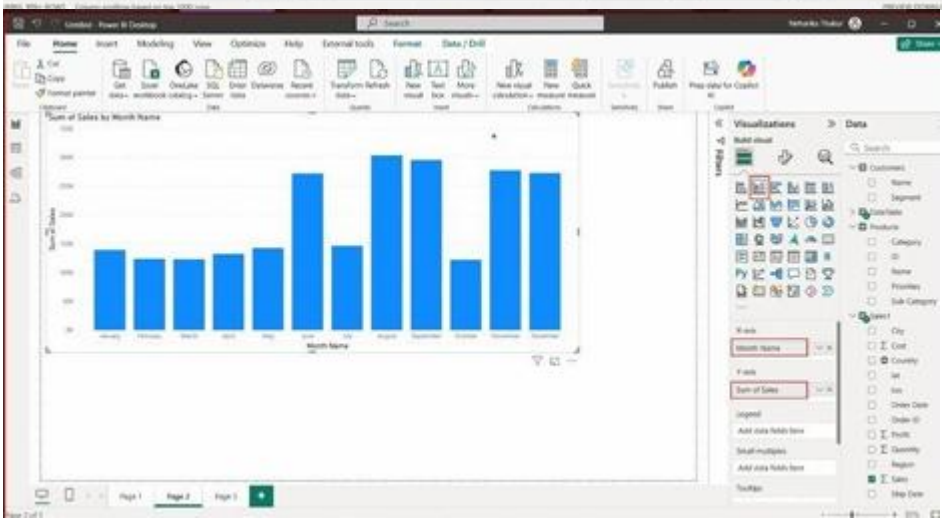
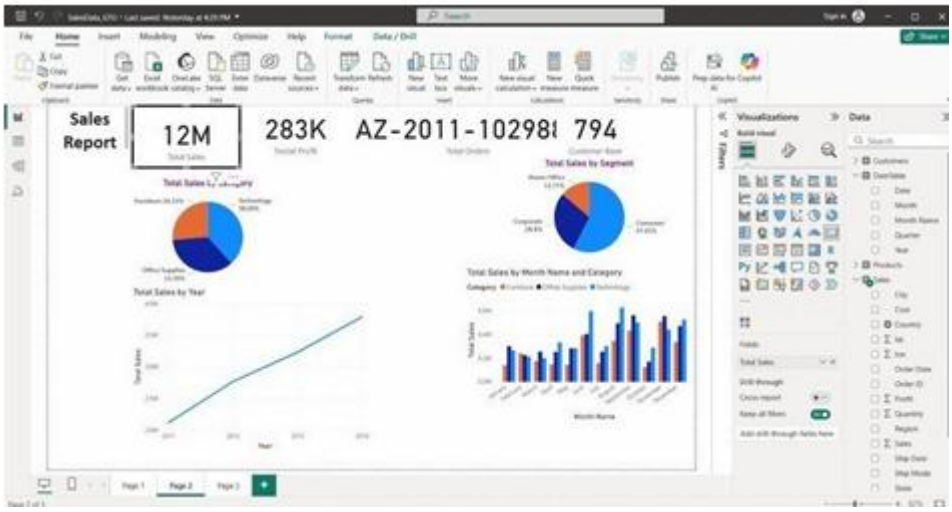

Visualizations
Data



This learning path prepared me for the Microsoft Certified:Power BI Data Analyst Associate (PL-300) exam.

2.5 **Role and Responsibilities During Internship**

During the 15-day internship, I performed multiple roles across learning and hands-on tasks:

Learner and Active Participant

- Attended live and self-paced sessions covering Azure AI, NLP, Generative AI, and Power BI.
- Completed assessments and quizzes to reinforce concepts.
- Practiced implemetation of AI services in the virtual machine

NLP Solution AI Developer With Azure AI Language

- Tasks included:
  - Sentiment analysis
  - Language detection and summarization
  - Azure Language Studio
  - Speech Recognition including key phrase extraction and named entity recognition

Generative AI Explorer

- Used Azure Machine Learning Studio to explore generative AI models.
- Worked with models like GPT, BERT, Copilot.
- Learned about MLOps, prompt engineering, and deployment pipelines.

Power BI Analyst and Dashboard Creator

- Connected Power BI to the SalesData.xlsx dataset.
- Cleaned and transformed data using Power Query Editor.

- Created DAX formulas and measures for sales KPIs.
- Designed visuals such as charts, slicers, and filters.
- Delivered a polished Power BI file: Sales_Data_GTU.pbix.

Presenter and Final Project Contributor

- Presented project outcomes during the final review session.
- Explained business insights derived from the dashboard.
- Shared knowledge and received feedback from mentors.

CHAPTER: 3

Internship Work

3.1 Internship Work

Day	Date	Hours	Activities
Day 1	02/07/2025	8 + 2	Orientation to the Microsoft Data & AI Skills Internship Program. Overview of AI and Microsoft Azure. Introduction to Azure AI Fundamentals (AI-900).
Day 2	04/07/2025	8 + 2	Deep dive into Azure Cognitive Services: Vision, Speech, Language APIs. Hands-on with building simple cloud-based AI models.
Day 3	07/07/2025	8 + 2	Introduction to Natural Language Processing (NLP) using Azure AI Language. Worked on sentiment analysis and language detection.
Day 4	09/07/2025	8	Introduction to Power BI and understanding its interface, functionalities, and data connectivity options. Connected to sample datasets and performed basic data cleaning.
Day 5	10/07/2025	8	Focused on data modeling techniques and building relationships between tables. Cleaned and transformed data using Power Query Editor.
Day 6	11/07/2025	8	Designed interactive dashboards and visualizations (bar charts, KPIs, slicers). Created DAX measures.
Day 7	14/07/2025	8	Finalized dashboard in Power BI Desktop.
Day 8	15/07/2025	8 + 2	Submitted final Power BI project and reflected on overall internship learning experience. Participated in Final Assessment (MCQ).

3.1 Internship Work:

Azure AI Fundamentals (AI-900)

- The first day of the internship focused on building a strong foundation in Artificial Intelligence and Microsoft Azure services. This module helped me understand core AI concepts, real-world applications, and introduced the Azure ecosystem.
- The day started with a warm welcome and an overview of the Microsoft Data & AI Skills Internship structure, goals, and certification roadmap.
- I was introduced to Artificial Intelligence, its types, and how it's different from Machine Learning and Deep Learning.
- We discussed how AI is transforming different industries like healthcare (predictive diagnosis), finance (fraud detection), and retail (personalized recommendations).
- Explored Azure AI Fundamentals, focusing on Azure services that support AI—like Azure Machine Learning, Azure Cognitive Services, and Azure Bot Services.
- Understood the importance of responsible AI, including fairness, reliability, privacy, and transparency in building AI systems.
- The day concluded with a post-training MCQ assessment to evaluate our understanding of AI concepts and Azure tools covered in the session.

Build a Natural Language Processing (NLP) Solution with Azure AI Language

- This module was all about working with human language using AI. It introduced the capabilities of Azure AI Language — Microsoft's cloud-based NLP platform — and how it helps extract meaning and insights from unstructured text data.
- Learned what Natural Language Processing (NLP) is and where it is used — such as chatbots, translation services, sentiment monitoring, and customer support automation.
- Used Azure Language Studio to run no-code NLP models directly in the browser.
- Performed Sentiment Analysis to evaluate positive or negative tone in product reviews.
- Implemented Language Detection to automatically detect the language of a given input text.
- Learned how to build more advanced solutions using Key Phrase Extraction, Named Entity Recognition (NER), and Text Summarization.
- Practiced using both GUI tools and REST APIs for integration into applications.
- The session wrapped up with a post-training MCQ test to reinforce key topics and practical applications.

Generative AI Models in Azure Machine Learning

- This session introduced us to Generative AI — a class of AI that can create text, images, and more. We explored how Microsoft Azure supports large language models and how these can be deployed and customized using Azure ML Studio.
- Learned about foundation models such as GPT (by OpenAI), BERT, and DALL·E.
- Understood how these models are trained on large datasets and adapted for specific tasks using prompt engineering.
- Explored the concept of Generative Pre-trained Transformers and how they power modern chatbots and AI assistants.
- Practiced using Azure Machine Learning Studio to access and run pre-trained models for generating text responses.
- Got hands-on with a no-code workflow in Azure ML to train and deploy generative models in a scalable environment.
- Completed a post-training assessment (MCQs) focused on Generative AI concepts and Azure ML tools.

Microsoft Power BI Data Analysis (PL-300)

- Started the Power BI module by learning the Power BI Desktop interface.
- Understood the types of data sources that Power BI can connect to (Excel, CSV, SQL Server, etc.).
- Imported the SalesData.xlsx dataset into Power BI.
- Used Power Query Editor to clean, transform, and structure raw data.
- Practiced removing nulls, changing data types, renaming columns, and splitting data fields.
- End of session included a post-training MCQ quiz to check understanding of data cleaning and importing.
- Focused on data modeling – designing relationships between tables and creating a logical data model.
- Learned how to create a star schema and manage table joins effectively.
- Started writing DAX (Data Analysis Expressions) formulas for calculated columns and custom metrics.
- Built measures like Total Sales, Average Profit, and Quantity Sold using DAX.
- Completed a module quiz testing data modeling and DAX basics.
- Worked on building dashboards using visual elements like bar charts, pie charts, slicers, and KPIs.
- Learned how to add interactivity with filters, buttons, bookmarks, and tooltips.
- Applied formatting, color coding, and custom visuals for better storytelling.
- Created dynamic titles and added trendlines to analyze business patterns.
- Gave a short assessment at the end of the day based on Power BI visualization features.
- Finalized the Power BI dashboard for the internship project.

- Performed a case study analysis of the sales dataset to answer key business questions.
- Reviewed dashboard layout and optimized visuals.
- Completed the day with a recap quiz to test practical understanding of data analysis tasks.
- Submitted the completed Power BI dashboard: Sales_Data_GTU_AS_KS.pbix.
- Presented key findings from the dashboard during a Q&A-style review session.
- Reflected on overall learning from the internship and how each module contributed to the final output.

Took the final post-training MCQ assessment covering all Power BI concepts from PL-300 training.

CHAPTER: 4

Conclusion

4.1 Conclusion

The Microsoft Data & AI Skills Internship Program 2025 has been an immensely valuable and transformative experience. Over the course of 78 hours, I gained comprehensive exposure to industry-leading tools and technologies, including Microsoft Azure AI, Natural Language Processing (NLP), Generative AI, and Power BI. The internship was delivered in a structured virtual format, combining instructor-led Skill-Based Training (SBT) sessions with practical assessments. Each module—ranging from foundational AI concepts to real-world dashboard creation—was designed to build both theoretical understanding and hands-on proficiency.

Exploring on real-world datasets, deploying models through Azure Machine Learning, and designing interactive dashboards in Power BI helped bridge the gap between academic knowledge and industrial application. The final outcome—a complete sales analysis dashboard—reflects the practical skills acquired during the program. This internship not only strengthened my technical foundation but also prepared me for certifications like AI-900 and PL-300, aligning with my long-term career goals in AI and data science. I am grateful to Microsoft Corporation (India) Pvt. Ltd. and GTU for providing this opportunity to enhance my skills in a professional and forward-looking environment.

CHAPTER: 5

Future Enhancement

5.1 Future Enhancement

In the future, I would like to further strengthen my skills in Power BI, as it is a highly in-demand tool in the field of data analysis and business intelligence. By learning advanced features like DAX functions, real-time data integration, and report automation, I can build more powerful and interactive dashboards.

All the lectures conducted during the internship, including those on Azure AI Fundamentals, Natural Language Processing, Generative AI concepts, and Power BI, have built a strong base that I plan to enhance further through practical application and continuous learning.

These improvements will help me understand data better and also open up more career opportunities for roles like Data Analyst or Business Intelligence Developer in the future.