

Internship Final Report – AI/ML

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Major: B.Tech – INFORMATION TECHNOLOGY

Internship Duration: January 1st, 2026 - January 31st, 2026

Company: ShadowFox

Domain: Artificial Intelligence and Machine Learning

Coordinator/ Mentor: Mr. Hariharan

Objectives

The main objective of this internship was to gain practical exposure to Artificial Intelligence and Machine Learning concepts through hands-on projects. The internship aimed to strengthen my understanding of machine learning algorithms, data preprocessing techniques, and real-world problem-solving using AI/ML tools. Another objective was to explore advanced NLP concepts and understand how modern transformer-based models work in practical applications.

Tasks and Responsibilities

During the internship, I completed tasks across three levels: Beginner, Intermediate, and Advanced.

At the **Beginner level**, I worked on a **House Price Prediction using Machine Learning** project. My responsibilities included understanding the dataset, performing basic data preprocessing, and building a regression model to predict house prices.

At the **Intermediate level**, I developed a **Loan Approval Prediction System**. I was responsible for data analysis, applying classification algorithms, and evaluating model performance to predict loan approval outcomes.

At the **Advanced level**, I implemented a **Text Summarization system using Transformer models**. My responsibilities included generating summaries from long text, analyzing output quality, and evaluating results using word count analysis and simple visualizations.

Learning Outcomes

Through this internship, I gained strong hands-on experience in machine learning and natural language processing. I learned how to preprocess data, build and evaluate ML models, and apply AI concepts to real-world datasets. I also gained exposure to transformer-based NLP models and understood their practical use cases, strengths, and limitations. Additionally, the internship improved my problem-solving skills, coding confidence, and understanding of AI workflows.

Challenges and Solutions

One of the major challenges was handling real-world datasets that contained missing values and inconsistent data. This was addressed by applying proper data cleaning and preprocessing techniques. Another challenge was understanding advanced NLP concepts such as transformer models and text summarization. I overcame this by studying model documentation, experimenting with different parameters, and analyzing outputs carefully. Debugging errors and optimizing outputs also helped improve my learning experience.

Conclusion

The ShadowFox internship provided a valuable learning experience in Artificial Intelligence and Machine Learning. By completing projects at beginner, intermediate, and advanced levels, I was able to build a strong foundation and progress toward advanced AI concepts. The internship successfully enhanced my technical skills and prepared me for future opportunities in AI and data-driven roles.

Acknowledgments

I would like to express my sincere gratitude to **ShadowFox** for providing this internship opportunity. I am thankful to **Mr. Hariharan**, the internship coordinator, for his guidance and support throughout the program. I also appreciate the learning resources and structured tasks that helped me gain practical experience in AI and Machine Learning.