

# Internship Final Report

**Student Name:** Adarsh Ramesh Zolekar

**University:** Savitribai Phule Pune University (STES SKNCOE)

**Major:** Computer Engineering

**Internship Duration:** October 1st, 2025 – October 31st, 2025

**Company:** ShadowFox

**Domain:** AI/ML

**Mentor:** Mr. Hariharan

**Coordinator:** Mr. Aakash

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## Objectives

During my time at ShadowFox, my primary goal was to deepen my understanding of Artificial Intelligence and Machine Learning (AI/ML) by working on real-world projects. I aimed to enhance my technical skills, improve my problem-solving abilities and explore how AI/ML technologies can solve practical business challenges.

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## Tasks and Responsibilities

Throughout the internship, I had the chance to work on a variety of exciting tasks, which included:

- **Setting Up Profiles:** I updated my LinkedIn profile to reflect my technical skills and created a dedicated GitHub repository named "ShadowFox" to document my work.
- **Beginner Level Task:** Worked on the *Boston House Price Prediction model* using a dataset with features such as the number of rooms and crime rates. This task involved data preprocessing, regression model training and performance evaluation, helping me understand how to build predictive models.
- **Intermediate Level Task:** Developed a *car selling price prediction model* that estimated prices based on features like fuel type, years of service, kilometers driven and transmission type. This task required extensive data analysis, model selection and tuning to achieve accurate predictions.
- **Advanced Level Task:** Worked on deploying a language model (LM) to explore its natural language processing capabilities. This included implementing the model in a Jupyter notebook and analyzing its performance on various text inputs.

- **Proof of Work:** I documented my progress by sharing updates on LinkedIn, posting video.
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## **Learning Outcomes**

**This internship provided me with a wealth of knowledge and hands-on experience. Key takeaways include:**

- **Technical Proficiency:** Gained practical skills in machine learning frameworks like Python libraries and Scikit-learn.
  - **Data Analysis:** Improved my ability to preprocess and explore data to uncover meaningful insights.
  - **Problem-Solving:** Learned to systematically approach challenges by researching, experimenting, and collaborating with peers.
  - **Professional Development:** Enhanced my online presence and networking skills by maintaining an active LinkedIn profile and showcasing my work on GitHub.
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## **Challenges and Solutions**

**Every project comes with its own set of challenges. Here are some obstacles I faced and how I overcame them:**

- **Model Accuracy Issues:** Initially, the Boston House Price Prediction model faced challenges in achieving accurate results. I improved performance by tuning hyperparameters and experimenting with different regression models.
  - **Time Management:** Juggling multiple tasks alongside documentation was challenging. Creating a structured timeline helped me prioritize and complete tasks on time.
  - **Complex Debugging:** While working on the car selling price prediction model, I encountered persistent bugs. Collaborating with peers and researching online resources helped me identify and fix these issues.
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## **Conclusion**

Reflecting on my internship at ShadowFox, I realize how much this experience has contributed to my personal and professional growth. It was not just about completing tasks but also about learning to solve real-world problems using AI/ML. The projects I worked on have given me a deeper appreciation of how technology can drive innovation and efficiency in business.

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## **Acknowledgments**

I would like to express my sincere gratitude to:

- **Mr. Hariharan, my mentor, for his continuous support and guidance throughout the internship.**
- **Mr. Aakash, the internship coordinator, for providing this wonderful opportunity and supporting me along the way.**
- **The entire ShadowFox team for creating a collaborative and encouraging environment.**

This internship has been an invaluable experience, and I am truly grateful for all the opportunities I had to learn and grow.