

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANASANGAMA, BELAGAVI – 590018**



**An Internship Report
on
ARTIFICIAL INTELLIGENCE AND MACHINE
LEARNING**

Submitted in partial fulfillment for the award of degree of

**Bachelor of Engineering
in**

Artificial Intelligence and Machine Learning

Submitted by

STEPHEN PEDRU FERNANDES

4SO21AI056

Internship Carried Out
at
OptM Media Solution Pvt. Ltd.



Internal Guide
Dr. Shreenath Acharya
<<Designation>>
St. Joseph Engineering College



External Guide
Abhay N
Data Engineer
OptM Media Solutions Pvt. Ltd.

Department of Intelligent Computing & Business Systems
St Joseph Engineering College, An Autonomous Institution
Mangaluru - 575028
2024-25

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
JNANASANGAMA, BELAGAVI – 590018**



**An Internship Report
on
ARTIFICIAL INTELLIGENCE AND MACHINE
LEARNING**

Submitted in partial fulfillment of the requirements for the degree

**Bachelor of Engineering
in
Artificial Intelligence and Machine Learning**

Submitted by

STEPHEN PEDRU FERNANDES

4SO21AI056



**Department of Intelligent Computing & Business Systems
St Joseph Engineering College, An Autonomous Institution,
Mangaluru - 575028
2024-25**

St Joseph Engineering College, Mangaluru – 575 028
An Autonomous Institution
Department of Intelligent Computing & Business
Systems



CERTIFICATE

Certified that the Internship Work titledwas carried out by Mr. **Stephen Pedru Fernandes**, bearing USN **4SO21AI056**, a bonafide student of final year B.E. in partial fulfillment for the award of Bachelor of Engineering in Artificial Intelligence and Machine Learning of the Visvesvaraya Technological University, Belagavi, during the year 2024-25. Further, it is certified that all corrections/suggestions indicated during Internal Evaluation have been incorporated in this report.

XXXX

Internal Guide

Dr Rio D'Souza

HOD - ICBS

External Viva Voce Examination

Name of the Examiners

Signature with Date

1. -----

2. -----



OptM Media Solutions Private Limited

INTERNSHIP CERTIFICATE

Date: 30-04-2025

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Stephen Fernandes**, bearing Roll No. **4SO21A1056**, a student of **BE in AI&ML** at **St Joseph Engineering College, Mangalore.**, has successfully completed an internship with **OptM Media Solutions Private Limited** as a **AI & ML Intern** in AI Development from **3rd March to 03rd April 2025**.

During the internship, **Stephen Fernandes** was actively involved in various AI Development tasks, including but not limited to:

- Using Pre-trained LLM with RAG: Fine-tuning LLM with RAG improves legal query handling using relevant IPC and Acts documents.
- Legal Dataset Challenge: Open-source legal datasets are scarce; scraping authenticated sources might be necessary for robust training.

Stephen Fernandes has exhibited a keen interest in understanding and using a pre-trained LLM with RAG improves legal query handling, but due to limited open datasets, scraping or exploring past legal AI projects is necessary.

We wish them all the best in their future endeavours.

For OptM Media Solutions Private Limited

sahana 

N Sahana Gowda

HR Manager

OptM Media Solutions Pvt. Ltd.

OptM Media Solutions Private Limited

Address: #21/1, Church Street Road, Basavanagudi, Bangalore, Karnataka – 560004 INDIA

CIN: U32100KA2019PTC126553 EmailId:hemantha.lakshmi@optmsol.com

Website:www.optmsol.com Contact:9886722627

DECLARATION

I, **Stephen Pedru Fernandes**, bearing USN **4SO21AI056**, student of final year B.E. in Artificial Intelligence and Machine Learning, St Joseph Engineering College, Mangaluru, hereby declare that the Internship Work titled “**AIML INTERN**” has been duly executed by me from 04 March 2025 to 04 April 2025, at OptM Media Solutions Pvt. Ltd, Bangalore. Further, the “Tasks Performed” section of this report represents the work done solely by me and does not contain any statements falsely claiming work done by others, as my own.

Date: 09-05-2025

Place: Chennai

Student Name

Stephen Pedru Fernandes

ACKNOWLEDGMENT

I would like to express my sincere gratitude to all those who supported and guided me throughout my internship journey.

First and foremost, I am deeply thankful to my external guide, Mr. Abhay N at OptM Media Solutions Pvt Ltd., Basavanagudi, Bangalore, for his valuable mentorship, continuous support, and for providing me with the opportunity to work on a meaningful project that enhanced my technical skills and industry understanding.

I extend my heartfelt thanks to my internal guide, Dr. Shreenath Acharya, and coordinator, Ms. Gayana M.N., for their constant encouragement, guidance, and support during the course of this internship.

I would also like to thank our Head of the Department, Dr. Rio Dsouza, for providing a strong academic foundation and facilitating this internship opportunity.

My sincere thanks to the principal of our institution, Dr. Rio Dsouza, for enabling such practical learning experiences that bridge the gap between academics and industry.

I am also grateful to the Assistant Directors and Director for their support and vision in shaping a dynamic learning environment.

Lastly, I would like to thank all the faculty members of the department, my friends, and my family for their moral support, motivation, and continuous encouragement throughout this journey.

EXECUTIVE SUMMARY

I carried out my internship as a MERN STACK Intern at OptM Media Solutions Pvt. Ltd. Systems from March 04, 2025, to April 04, 2025. The internship was conducted in an offline format, allowing me to be physically present at the workplace. This provided a more interactive and collaborative learning environment, enabling direct communication with mentors and team members.

OptM Media Solutions Pvt. Ltd., established in 2016 and based in Bangalore, Karnataka, specializes in custom software, web and mobile app development, cloud solutions, and AI/ML systems. The company delivers secure, scalable digital solutions while fostering innovation to enhance business productivity. OptM is committed to driving technological advancements and providing top-notch services to its clients. Their focus on quality and customer satisfaction has positioned them as a trusted partner in the tech industry.

The primary objective of my internship was to gain practical experience and apply academic knowledge in a real-world setting. This experience helped me understand professional work environments, industry practices, and tools commonly used in my field. Internships enhance both technical and soft skills such as communication, teamwork, and problem-solving. They offer valuable exposure to real responsibilities, helping individuals build confidence and clarify career goals. Additionally, internships provide opportunities to network with professionals and strengthen one's resume for future job prospects. Overall, internships are essential for career development and transitioning smoothly from education to the professional world.

During the internship, I significantly improved my technical capabilities by working on a technical project focused on building a Legal AI Bot to assist with legal requirements. The project utilized the Legal Llama 7B model, React for the frontend, Firebase for user authentication, and Python Fast API for backend services. This hands-on experience allowed me to apply classroom knowledge to real-world scenarios, enhancing my coding skills, logical thinking, and ability to troubleshoot complex issues effectively.

Apart from technical skills, the internship helped me develop essential soft skills that are crucial in any professional setting. I improved my communication and teamwork abilities by participating in regular stand-up meetings, presenting my work, and collaborating with peers and mentors. Working under deadlines taught me effective time management, prioritization, and how to work independently while being accountable for assigned tasks.

STEPHEN PEDRU FERNANDES

CONTENTS

SL No.	Title	Page No.
1	About the Institution	1
1.1	Introduction	1
1.2	Services offered by the Institution	1
1.3	Contact Details	1
2	About the department	2
2.1	Introduction	2
2.2	Roles and Responsibilities	2
3	Tasks Performed	3
3.1	Weekly Report	3
3.2	Project Work (if applicable)	6
3.3	Snapshots	7
4	Reflection Notes	14
4.1	Experience	14
4.2	Technical Outcomes	14
4.3	Non-technical Outcomes	15
	References	16