UNITED INSTITUTE OF TECHNOLOGY

Periyanaickenpalayam,Coimbatore-641020.

Internship Report

Submitted by

Tharun P M- 714521243056

Program	B.Tech
Department	Artificial Intelligence and Data Science
Academic Year	2022-2023
Semester	04
Date of Submission	10/03/2024

Index

INTERNSHIP OFFER LETTER

TECHVOLT SOFTWARE PVT.LTD
Simple But Marvelous

Date:01/07/2023

To,

Mr.R.Gowtham [Register No:714521243023], Student of B.Tech(AI & DS),
United Institute of Technology, Coimbatore.

Sub: Letter of Internship Offer

This is to confirm you that, you have been permitted to do your internship in the field of **"Machine Learning"** at our company with effective from 1st July 2023 to 31st July 2023 located at Coimbatore.

This has to be understood very clearly that you are joining the company for the Internship as a **"Trainee"**. During the internship period, you have to complete the tasks as per schedule allocated to you. Stipend will be offered to the candidates from the 2nd project assignment.

In case if you are absent from the work/internship for more than two (2) consecutive days, without informing the HR Department, the company reserves the right to terminate your services/internship with immediate effect on the grounds of no call / no show to work/internship and unapproved leaves.

During your employment/internship with Techvolt Software Pvt.Ltd, you will exhibit professional behavior at all times be it with customers and/or your reporting managers and/or your peers or anybody you come in contact with. In your assignment, you will be responsible for the duties based on the role assigned to you, as more particularly laid out in the job/internship description for this position.

All the best!!!

For Techvolt Software Private Limited,

HR Head

TECHVOLT SOFTWARE PVT.LTD COIMBATORE

www.techvoltcoimbatore.com Email : support@techvoltcoimbatore.com Mob : 8428 983 975
#28,Thacil Centre, 2nd Floor, Above City Union Bank,Raja Annamalai Road,Saibaba Colony,Coimbatore -641011

UNITED INSTITUTE OF TECHNOLOGY

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INTERNSHIP SYNOPSIS

This agreement is written by the student in consultation with the faculty mentor and industrial supervisor,to clarity the educational purpose of the internnship and to ensure an understanding of the total learning experience among the principal parties involved.

PART I : Contact information:

Student Name	**:**	Tharun P
Reg / Roll No	**:**	714521243056
Contact No	**:**	**+91** 9345279788
Programme	**:**	B.Tech
Student's Email ID	**:**	its.tharun.012@gmail.com
Postal Address	**:**	United Institute Of Technology, Periyanaickenpalayam, Coimbatore – 641020.
Current CGPA	:	7.85
Current Semester	**:**	04
Faculty Mentor	**:**	Kavitha V
Industry Supervisor	**:**	Saravanan V
Designation	:	Mentor
Email ID	**:**	support@techvoltcoimbatore.com
Industry Sector	:	Software Development and Digital Marketing
Organization Name	**:**	Techvolt Software PVT LTD
Postal Address	**:**	Techvolt Software PVT LTD,NSR Rd, SaiBaba Kovil,Coimbatore – 641011.
Start Date	**:**	01/07/2023
End Date	**:**	31/07/2023
Intership Is	**:**	Paid

PART II: Internship Objectives/ Learning Activities

Internship Objectives:

What do you intend to learn, acquire and clarity through this internship?

Knowledge and Understanding:

1. **Deepen Understanding of Machine Learning Concepts:**
    - Acquire a more profound understanding of core machine learning concepts, algorithms, and techniques through hands-on experience.
2. **Explore Advanced Topics:**
    - Gain exposure to advanced topics within the field of machine learning, such as deep learning, reinforcement learning, or natural language processing.
3. **Practical Application of Theoretical Knowledge:**
    - Apply theoretical knowledge gained during academic studies to real-world scenarios, enhancing the practical understanding of machine learning.

Skills Development:

1. **Enhance Programming Skills:**
    - Improve proficiency in programming languages commonly used in machine learning, such as Python or R.
2. **Develop Data Manipulation and Analysis Skills:**
    - Hone skills in data preprocessing, cleaning, and exploratory data analysis to prepare data for machine learning models.
3. **Model Building and Evaluation:**
    - Develop expertise in building machine learning models and evaluating their performance using appropriate metrics.
4. **Version Control and Collaboration:**
    - Gain experience in using version control systems (e.g., Git) for collaborative coding, ensuring effective teamwork and code management.

Learning Activities:

1. **Participate in Workshops and Training Sessions:**
    - Attend workshops and training sessions organized by the internship program or the hosting organization to broaden knowledge on specific tools, frameworks, or methodologies.

2. **Engage in Code Reviews:**
    - Actively participate in code reviews, seeking feedback from

experienced team members to improve coding practices and model implementation.

On-the-Job Activities:

1. **Real-world Project Implementation:**
    - Actively contribute to ongoing machine learning projects within the organization, applying acquired skills and knowledge to address practical challenges.
2. **Collaborate with Cross-functional Teams:**
    - Collaborate with professionals from diverse backgrounds, including data scientists, engineers, and domain experts, to understand the interdisciplinary nature of machine learning applications.

Teaching/Mentoring Activities:

1. **Knowledge Sharing within the Team:**
    - Share insights, learnings, and discoveries with team members, fostering a collaborative learning environment.
2. **Seek Mentorship:**
    - Engage with experienced professionals within the organization, seeking mentorship to gain valuable guidance on career development and skill enhancement.

Off-the-Job Activities:

1. **Continuous Learning:**
    - Engage in self-directed learning by exploring relevant research papers, online courses, and books to stay updated on the latest advancements in machine learning.
2. **Networking and Community Involvement:**
    - Attend industry conferences, webinars, or meetups to expand professional networks and stay connected with the broader machine learning community.

PART III : Expected Field of Internship:

The anticipated field of internship is "**Advanced Natural Language Processing (NLP) and Sentiment Analysis in Social Media**."

Title/Area:

"**Exploring Advanced NLP Techniques for Social Media Sentiment Analysis**"

Overview:

This internship will focus on leveraging cutting-edge natural language processing (NLP) techniques to analyze sentiments expressed in social media

data. Social media platforms are rich sources of unstructured text data, providing valuable insights into public opinions, brand sentiments, and emerging trends. The internship aims to explore and apply advanced NLP methodologies to extract meaningful information from this vast and dynamic data landscape.

Key Components:

1. **NLP Algorithm Exploration:**
    - Investigate state-of-the-art NLP algorithms, including transformer-based models like BERT and GPT, to understand their capabilities in capturing context and nuances in social media text.
2. **Sentiment Analysis Model Development:**
    - Design and implement sentiment analysis models tailored for social media content, considering challenges such as informal language, slang, and context-dependent sentiments.
3. **Data Preprocessing and Feature Engineering:**
    - Develop efficient data preprocessing pipelines to handle large volumes of social media text data. Explore innovative feature engineering techniques to enhance model performance.
4. **Real-time Analysis:**
    - Explore real-time sentiment analysis capabilities, enabling prompt response to emerging trends, crisis management, and timely decision-making based on social media sentiments.
5. **Ethical Considerations:**
    - Investigate ethical considerations in sentiment analysis, including bias detection and mitigation, to ensure responsible and fair analysis of diverse social media content.

Industry Consultation:

This internship plan has been crafted in consultation with industry experts, including professionals with extensive experience in NLP and sentiment analysis. The industry input ensures that the internship aligns with current industry needs and provides practical insights into the challenges and opportunities in the field.

Expected Outcomes:

Upon completion of the internship, it is expected that the intern will have gained proficiency in advanced NLP techniques, developed a functional sentiment analysis model for social media, and contributed valuable insights to the organization's understanding of public sentiments in the digital space.

UNITED INSTITUTE OF TECHNOLOGY

Periyanaickenpalayam,Coimbatore-641020.

STUDENT INTERNSHIP - ATTENDANCE LOG

Student Name : Tharun P M

Reg. / Roll No. : 714521243056

Contact No. : +91 9345279788

Programme : B.Tech

Faculty Mentor : Kavitha V

Industry Supervisor : Saravanan V

Designation : Mentor

Organization Name : Techvolt Software PVT LTD

Start Date : **01/07/2023** **End Date** : **31/07/2023**

Week	From	To	Signature
1	01/07/2023	08/07/2023	
2	09/07/2023	15/07/2023	
3	16/07/2023	22/07/2023	
4	23/07/2023	31/07/2023	

Student's Sign

HR Manager

UNITED INSTITUTE OF TECHNOLOGY

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STUDENT INTERNSHIP – WEEKLY LOG

Week	Date
1	01/07/2023 to 08/07/2023

Dept.I Division : Machine Learning

Project Title : "Classification Mastery"

Learnings of the week

During the first week of my machine learning internship, I delved into the realm of classification. This involved understanding the fundamental concepts of categorizing data into distinct classes or groups. I explored various classification algorithms such as Decision Trees, Support Vector Machines, and Neural Networks. Real-world applications of classification, such as spam email detection, sentiment analysis in social media, and image recognition, provided practical insights into its significance. I also gained hands-on experience implementing classification models using popular machine learning libraries like scikit-learn. This foundational week equipped me with the knowledge to discern and solve problems involving labeled data.

Student's Sign

HR Manager

UNITED INSTITUTE OF TECHNOLOGY

Periyanaickenpalayam,Coimbatore-641020.

STUDENT INTERNSHIP – WEEKLY LOG

Week	Date
2	09/07/2023 to 15/07/2023

Dept.I Division : Machine Learning

Project Title : "Regression Insights"

Learnings of the week

In the second week, the focus shifted to regression analysis, a crucial aspect of predictive modeling. I delved into understanding how regression algorithms predict continuous outcomes by establishing relationships between variables. Exploring linear regression, polynomial regression, and support vector regression broadened my understanding of diverse modeling approaches. I encountered real-world scenarios like stock price prediction, sales forecasting, and temperature estimation, illustrating the versatile applications of regression in addressing quantitative predictions. The week emphasized the importance of choosing the right regression model based on the nature of the data and problem at hand.

Student's Sign **HR Manager**

UNITED INSTITUTE OF TECHNOLOGY

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STUDENT INTERNSHIP – WEEKLY LOG

Week	Date
3	16/07/2023 to 22/07/2023

Dept.I Division : Machine Learning

Project Title : "Clustering Applications"

Learnings of the week

The third week was dedicated to exploring clustering algorithms, which involve grouping similar data points together. I delved into methods such as K-means, hierarchical clustering, and DBSCAN. Understanding the applications of clustering in customer segmentation, anomaly detection, and image segmentation provided valuable insights into its practical utility. Hands-on exercises allowed me to implement clustering algorithms, assess their performance, and interpret the results. This week enhanced my ability to uncover patterns within datasets without the need for predefined labels, offering a powerful tool for unsupervised learning scenarios.

Student's Sign **HR Manager**

UNITED INSTITUTE OF TECHNOLOGY

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STUDENT INTERNSHIP – WEEKLY LOG

Week	Date
4	23/07/2023 to 31/07/2023

Dept.I Division : Machine Learning

Project Title : "Predictive Analytics for House Prices and Diabetes"

Learnings of the week

The final week of my internship was dedicated to applying the acquired knowledge to a comprehensive project. The project involved leveraging machine learning techniques for predicting house prices and identifying potential diabetes patients. This hands-on experience required a synthesis of classification and regression concepts, integrating them into a cohesive solution. Building predictive models for both domains involved preprocessing data, feature engineering, model training, and evaluation. This culminating project not only solidified my understanding of machine learning but also showcased the practical application of these techniques in addressing real-world challenges.

Student's Sign

HR Manager

UNITED INSTITUTE OF TECHNOLOGY

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SUPERVISOR EVALUATION OF INTERN- INTERNSHIP PERFORMANCE REPORT

Student Name	:	Tharun P M
Reg. / Roll No.	:	714521243056
Contact No.	:	+91 9345279788
Programme	:	B.Tech
Email ID	:	its.tharun.012@gmail.com
Supervisor Name	:	Saravanan V
Designation	:	Mentor
Email ID	:	support@techvoltcoimbatore.com
Industry Sector	:	Software Development and Digital Marketing
Organization Name	:	Techvolt Software PVT LTD
Postal Address	:	Techvolt Software PVT LTD,NSR Rd, SaiBaba Kovil,Coimbatore – 641011.
Start Date	:	01/07/2023
End Date	:	31/07/2023
Intership Is	:	Paid

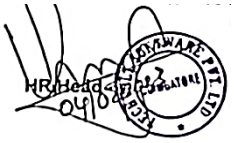
Parameter	Not Satisfactory	Satisfactory	Very Good	Excellent
Behaviour				✔
Performs in a dependable manner				✔
Cooperates with co-workers and supervisors				✔
Shows interest in work				✔
Learns quickly				✔
Shows initiative				✔
Produces high quality work				✔
Accepts responsibility				✔
Accepts criticism				✔

Parameter	Not Satisfactory	Satisfactory	Very Good	Excellent
Demonstrates organizational skills				✔
Uses technical knowledge and expertise				✔
Shows good judgment				✔
Demonstrates creativity/ originality				✔
Analyses problems effectively				✔
Is self-reliant				✔
Communicates well				✔
Writes effectively			✔	
Has a professional attitude				✔
Gives a professional appearance				✔
Is punctual				✔
Uses time effectively			✔	

INTERNSHIP EVALUATION REPORT

Overall performance of student intern:

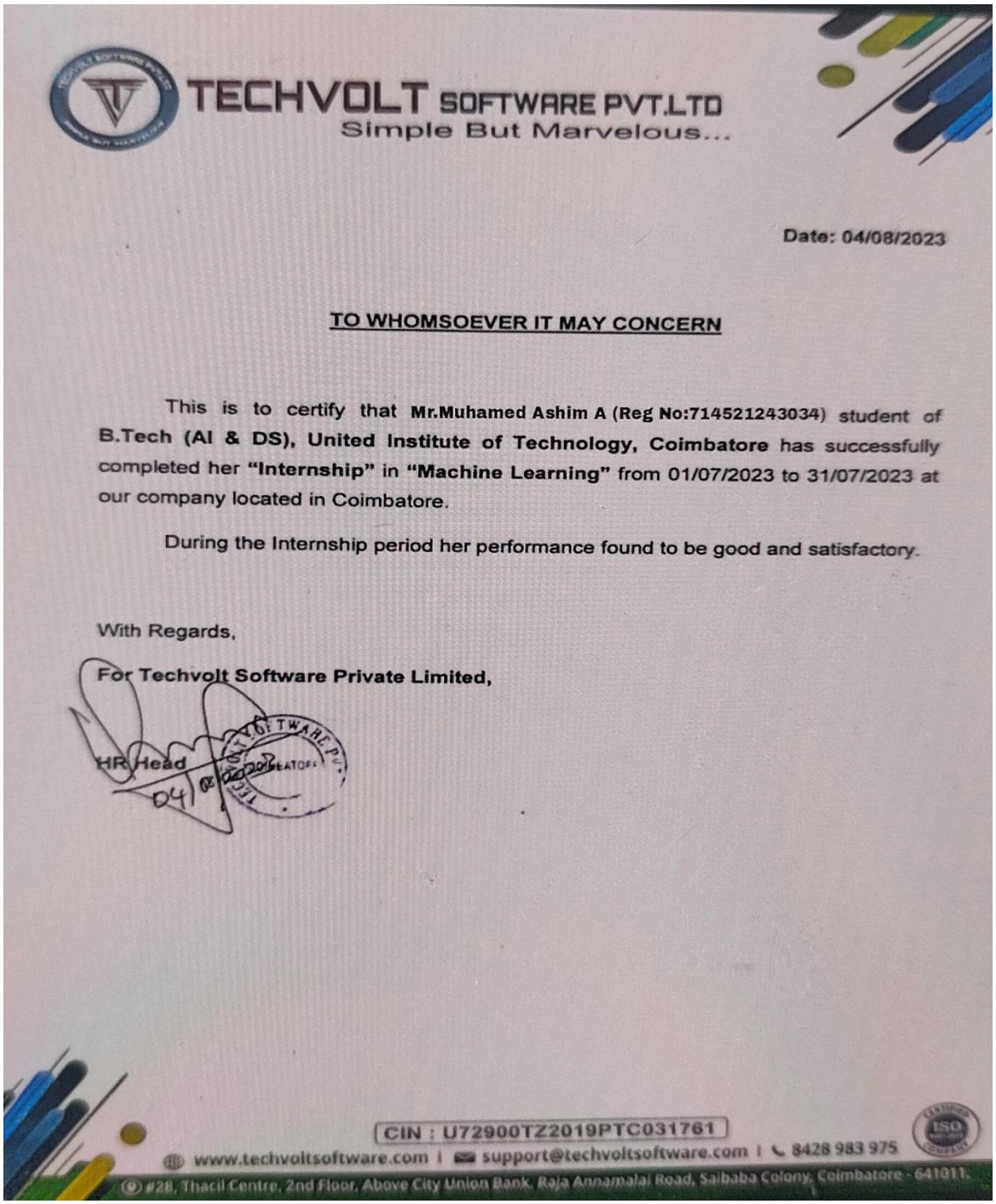
Parameter	Not Satisfactory	Satisfactory	Very Good	Excellent
Punctuality				✔
Maintenance of Daily Diary				✔
Skill Test				✔



Industry Supervisor Sign

HR Manager

Internship Completion Certificate



TECHVOLT SOFTWARE PVT.LTD
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Date: 04/08/2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr.Muhamed Ashim A (Reg No:714521243034)** student of **B.Tech (AI & DS), United Institute of Technology, Coimbatore** has successfully completed her **"Internship"** in **"Machine Learning"** from 01/07/2023 to 31/07/2023 at our company located in Coimbatore.

During the Internship period her performance found to be good and satisfactory.

With Regards,

For Techvolt Software Private Limited,

HR Head

CIN : U72900TZ2019PTC031761

www.techvoltsoftware.com | support@techvoltsoftware.com | 8428 983 975

#28, Thacil Centre, 2nd Floor, Above City Union Bank, Raja Annamalai Road, Saibaba Colony, Coimbatore - 641011.

TECHVOLT SOFTWARE PVT.LTD
Simple But Marvelous...

Date: 04/08/2023

TO WHOMSOEVER IT MAY CONCERN

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With Regards,

For Techvolt Software Private Limited,

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