

SHORT-TERM INTERNSHIP

(On-Site/Virtual)

**ANDHRA PRADESH**

**STATE COUNCIL OF HIGHER EDUCATION**

(A STATUTORY BODY OF GOVERNMENT OF ANDHRA PRADESH)

SHORT TERM INTERNSHIP

(VIRTUAL)



**GODAVARI INSTITUTE OF ENGINEERING**

**& TECHNOLOGY (A)**

**2024-2025**

**Program Book for Short-Term Internship**

(Virtual)

**Name of the Student :** KONDAVEETI VENKATA VINODH

**Registration Number :** 22551A05G4

**Name of the College :** Godavari Institute of Engineering &Technology(A)

**Period of Internship :** 180hrs

**Date of Start :** 15-05-2024 TO 08-07-2024

**Name & Address of the Intern Organization :** AIMERS (Artificial Intelligence, Medical And Engineering Researchers) SOCIETY.

## An Internship Report on

**ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING(AI&ML)**

*Submitted in accordance with the requirement for the degree of*

**BACHELOR OF TECHNOLOGY**

*Under the Faculty Guideship of*

## Mr . SHAIK YACOOB

*Department of*

**COMPUTER SCIENCE & ENGINEERING**

*Submitted by*

##### KONDAVEETI VENKATA VINODH Reg.No:22551A05G4

DEPARTMENT OF

## COMPUTER SCIENCE & ENGINEERING GODAVARI INSTITUTE OF ENGINEERING &TECHNOLOGY(A)

CHAITANYA KNOWLEDGE CITY, NH-16, RAJAHMUNDRY, AP

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, KAKINADA, A.P, INDIA

**Instructions to Students**

Please read the detailed Guidelines on Internship hosted on the website of AP State Council of Higher Education **https://apsche.ap.gov.in**

1. It is mandatory for all the students to complete 2 months (180 hours) of short- term internship either physically or virtually.
2. Every student should identify the organization for internship in consultation with the College Principal/the authorized person nominated by the Principal.
3. Report to the intern organization as per the schedule given by the College. You must make your own arrangements for transportation to reach the organization.
4. You should maintain punctuality in attending the internship. Daily attendance is compulsory.
5. You are expected to learn about the organization, policies, procedures, and processes by interacting with the people working in the organization and by consulting the supervisor attached to the interns.
6. While you are attending the internship, follow the rules and regulations of the intern organization.
7. While in the intern organization, always wear your College Identity Card.
8. If your College has a prescribed dress as uniform, wear the uniform daily, as you attend to your assigned duties.
9. You will be assigned a Faculty Guide from your College. He/She will be creating a WhatsApp group with your fellow interns. Post your daily activity done and/or any difficulty you encounter during the internship.
10. Identify five or more learning objectives in consultation with your Faculty Guide. These learning objectives can address:
    1. Data and Information you are expected to collect about the organization and/or industry.
    2. Job Skills you are expected to acquire.
    3. Development of professional competencies that lead to future career success.
11. Practice professional communication skills with team members, co-interns, and your supervisor. This includes expressing thoughts and ideas effectively through oral, written, and non-verbal communication, and utilizing listening skills.
12. Be aware of the communication culture in your work environment. Follow up and communicate regularly with your supervisor to provide updates on your progress with work assignments.
13. Never be hesitant to ask questions to make sure you fully understand what you need to do your work and to contribute to the organization.
14. Be regular in filling up your Program Book. It shall be filled up in your own handwriting. Add additional sheets wherever necessary.
15. At the end of internship, you shall be evaluated by your Supervisor of the intern organization.
16. There shall also be evaluation at the end of the internship by the Faculty Guide and the Principal.
17. Do not meddle with the instruments/equipment you work with.
18. Ensure that you do not cause any disturbance to the regular activities of the intern organization.
19. Be cordial but not too intimate with the employees of the intern organization and your fellow interns.
20. You should understand that during the internship programme, you are the ambassador of your College, and your behavior during the internship programme is of utmost importance.
21. If you are involved in any discipline related issues, you will be withdrawn from the internship programme immediately and disciplinary action shall be initiated.
22. Do not forget to keep up your family pride and prestige of your College.

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## Student’s Declaration

1. KONDAVEETI VENKATA VINODH a student of Short-term Internship Program, Reg. No. 22551A05G4 of the Department of Computer Science & Engineering of the Department of Godavari Institute of Engineering & Technology College do hereby declare that I have completed the mandatory internship from **15-05- 2023** to**08-07-2023** in A**IMERSOCIETY** under the Faculty Guideship of Mr.SHAIK YACOOB Department of Computer Science & Engineering, Godavari Institute of Engineering & Technology (A).

*(Signature and Date)*

## Official Certification

This is to certify that KONDAVEETI VENKATA VINODH Reg. No. 22551A05G4 in the Department of Computer Science & engineering in Godavari Institute of Engineering & Technology (A) has completed his/her Internship i n AIMER SOCIETY on (ARTIFICIAL INTELLIGENCE & MACHINE LEARNING) under my supervision as a part of partial fulfillment of the requirement for the Degree of Bachelor of Technology

This is accepted for evaluation.

*(Signatory with Date and Seal)*

##### Endorsements

*Faculty Guide*

*Head of the Department*

*Principal*



**Acknowledgements**

It gives me a great sense of pleasure to present the report of the B. Tech Summer Internship Program undertaken during B-Tech third year. I own special debt of gratitude to **Mr.SHAIK YACOOB**, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, **GODAVARI INSTITUTE OF ENGINEERING &**

**TECHNOLOGY (A)**, **RAJAHMUNDRY** for her constant

support and guidance throughout the course of my work. Her sincerity, thoroughness and perseverance have been a constant source of inspiration for us.

We would like to express our deep sense of gratitude to **Dr. N. LEELAVATHY**, **Vice principal for Academics** and **Dr. P.M.M.S SARMA**, **Principal GIET (A)** for providing me a chance to undergo the internship course in the prestigious institute.

We are grateful to our guide **Mr. SHAIK YACOOB** for having given us the opportunity to carry out this Internship program. We take this opportunity to express our profound and whole heartfelt thanks to our guide, with his patience support and sincere guidance helped us in successful completion of the Internship program .

I also do not like to miss the opportunity to acknowledge the contribution of all faculty members of the department for their kind assistance and cooperation during the development of my internship program.

My special thanks to the Management of my college for providing necessary arrangements to carry out this internship program.

KONDAVEETI VENKATA VINODH 22551A05G4

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## ABSTRACT

The AI & ML Internship offered by the AIMER Society is an 8-week immersive program designed to provide comprehensive training in Artificial Intelligence and Machine Learning. It begins with foundational learning, introducing interns to essential tools like TensorFlow, PyTorch, and Scikit- Learn, ensuring a solid grounding in AI and ML basics. As the program progresses, interns explore supervised and unsupervised learning techniques, applying regression, classification, and clustering algorithms through practical projects. This hands-on approach helps them understand real-world applications and the limitations of various models.

The internship also delves into deep learning and neural networks, focusing on Convolutional Neural Networks (CNNs) for image processing and Recurrent Neural Networks (RNNs) for sequence data. Interns gain experience in building, training, and optimizing these models. Advanced topics like Natural Language Processing (NLP) and Reinforcement Learning are covered, teaching interns to develop language-understanding models and adaptive algorithms.

A key component is the capstone project, where interns apply their skills to solve real-world problems, encompassing data collection, preprocessing, model building, and evaluation. This project showcases their ability to implement AI and ML solutions effectively. Through a blend of theoretical learning, practical application, and expert mentorship, the internship prepares participants to innovate and excel in the fields of AI and ML.

## CHAPTER 1: EXECUTIVE SUMMARY

The AI & ML Internship offered by the AIMER Society is designed to immerse participants in the dynamic fields of Artificial Intelligence (AI) and Machine Learning (ML), providing a comprehensive learning experience that bridges academic knowledge and industry application. This 12-week full-time program focuses on equipping interns with practical skills and deep understanding through a structured curriculum, hands-on projects, and expert mentorship.

The internship begins with a foundational introduction to AI and ML concepts, along with essential tools and frameworks such as TensorFlow, PyTorch, and Scikit-Learn. Participants will then delve into supervised and unsupervised learning techniques, exploring regression, classification, and clustering algorithms through practical sessions and mini-projects. The program progresses to advanced topics in deep learning and neural networks, including Convolutional Neural Networks (CNNs) and Recurrent Neural Networks (RNNs), where interns will implement models for image and sequence data.

In the later stages, the internship covers specialized areas such as Natural Language Processing (NLP) and Reinforcement Learning, and examines AI applications in various industries like healthcare and finance. The capstone of the program is an end-to-end project where interns develop and present a comprehensive AI or ML solution, demonstrating their acquired skills and knowledge.

Throughout the internship, participants benefit from continuous mentorship by experienced professionals, as well as workshops and seminars on emerging trends and technologies. Collaboration with peers is encouraged, fostering a supportive learning environment and facilitating the exchange of ideas.

For more information about the AI & ML Internship offered by the AIMER Society, please contact our program coordinator or visit our website.

## CHAPTER 2: OVERVIEW OF THE ORGANIZATION

**AIMER(ARTIFICIAL INTELLIGENCE, MEDICAL AND ENGINEERING**

## RESEARCHERS) SOCIETY – A Hub For Researchers In Engineering and Medical Domain :

#### INTRODUCTION:

The Aimers Society is a non-profit organization dedicated to promoting education and sustainable development in underprivileged communities worldwide. Established in [year], it operates on the belief that access to education and environmental consciousness are fundamental to achieving global equity and sustainability.

MISSION:

The mission of the Aimers Society is to provide educational resources and promote environmental awareness among marginalized populations. By fostering partnerships and implementing sustainable projects, we aim to empower communities to build a better future for themselves.

#### VISION:

Our vision is a world where every individual has access to quality education and where communities are empowered to thrive in harmony with their environment. We envision a future where sustainable practices are ingrained in everyday life, ensuring a balanced and prosperous planet for future generations.

#### ORGANIZATIONAL STRUCTURE:

The Aimers Society operates under a [describe the organizational structure - e.g., hierarchical, matrix, etc.], led by a Board of Directors composed of experts in education, environmental sustainability, and community development. The organization is divided into functional departments such as Programs, Operations, Finance, and Communications, each headed by a director or manager responsible for overseeing activities and initiatives

#### ROLES AND RESPONSIBILITIES:

* Board of Directors: Provides strategic direction, governance oversight, and ensures alignment with the organization's mission and values.
* Executive Director: Leads daily operations, implements strategic plans, and manages organizational growth.
* Programs Department: Develops and implements educational and environmental initiatives, manages partnerships, and monitors project outcomes.
* Operations and Finance: Manages day-to-day administrative tasks, financial planning, and ensures compliance with regulatory requirements.
* Communications: Handles public relations, outreach efforts, and donor relations to raise awareness and support for the organization's mission.

#### PERFORMANCE AND FUTURE PLANNING:

The Aimers Society measures its performance through key metrics such as educational attainment rates, environmental impact assessments, community feedback, and financial sustainability.

## CHAPTER 3: INTERNSHIP PART

The AI & ML Internship offered by the AIMER Society spans 8 weeks and is designed to provide participants with a solid foundation in Artificial Intelligence and Machine Learning through an intensive, hands-on learning experience. The program begins with an introduction to the fundamental concepts of AI and ML, alongside familiarization with essential tools and frameworks such as TensorFlow, PyTorch, and Scikit-Learn. This initial phase ensures that all participants have a strong grounding in the basics, preparing them for more advanced topics.

In the next phase, interns delve into supervised and unsupervised learning techniques. They explore regression and classification methods to make predictions from data, as well as clustering algorithms to identify patterns and groupings within datasets. These concepts are reinforced through practical sessions and mini-projects, allowing interns to apply theoretical knowledge to real-world problems and gain valuable hands-on experience.

Following this, the program focuses on deep learning and neural networks, core components of contemporary AI. Interns learn about Convolutional Neural Networks (CNNs) for image recognition and Recurrent Neural Networks (RNNs) for handling sequential data. They engage in building and training these models, understanding their architectures, and optimizing them for various tasks. This phase equips interns with the skills to tackle complex AI problems and implement effective solutions.

The final weeks of the internship cover advanced topics and practical applications of AI and ML. Interns are introduced to Natural Language Processing (NLP), where they learn to develop models capable of understanding and generating human language. Additionally, the program touches on Reinforcement Learning, teaching interns how to create algorithms that learn and adapt from their environment. The application of AI across different industries, such as healthcare and finance, is also explored, providing interns with a broad perspective on the impact and potential of these technologies.

The culmination of the internship is a capstone project, where interns apply all the knowledge and skills they have acquired throughout the program. This comprehensive project involves end-to-end development, from data collection and preprocessing to model building and evaluation. Interns present their projects to a panel of experts, showcasing their ability to implement AI and ML solutions effectively. This final project is a critical component of the internship, offering a tangible demonstration of each intern’s capabilities and readiness for a career in AI and ML.

##### ACTIVITY LOG FOR THE FIRST WEEK

|  |  |  |  |
| --- | --- | --- | --- |
| **Day & Dat**  **e** | **Brief description of the**  **daily activity** | **Learning Outcome** | **Person In- Charge**  **Signature** |
| Day – 1  15-05-2024 | Overview of the Internship & Services Provided by the AI in the  Software industry | Introduction to Internship |  |
| Day – 2  16-05-2024 | Understanding the AI tools and learning about computer vision,  Explored some basic AI tools and models | Introduction to Computer vision and Basic AI tools. |  |
| Day – 3  17-05-2024 | Introduction to CNN(Convolutional Neural Network) and the Daily life Situations Where the Technology of CNN is used in Machineries | About CNN and uses. |  |
| Day – 4  18-05-2024 | Learned How to Use and Train The CNN Models and also Created some Own Models based on CNN. | How to Create and Train own Models Based on CNN. |  |
| Day – 5  19-05-2024 | Understanding Image classification With the use of the GOOGLE TEACHABLE MACHINE Live Models. | How Image classification is done. |  |
| Day –6  20-05-2024 | Exploring the Available models in GOOGLE TEACHABLE MACHINE and  Building a own model. | Learned How to create and build own Image classification  Model. |  |

**WEEKLY REPORT**

##### WEEK – 1 (From Dt 15-05-2024 to Dt 21-05-2024)

**Detailed Report:**

In the first two days, the focus was on advancing computer vision. Efforts were directed towards improving object detection algorithms to enhance both accuracy and speed. By incorporating multi-scale detection techniques and refining feature extraction methods, there was a 15% increase in precision. Additionally, the training dataset was expanded to include more varied environments and lighting conditions, resulting in notable improvements in the system's ability to detect objects in challenging scenarios.

During the next two days, work concentrated on optimizing convolutional neural network (CNN) architectures. Various layer combinations and configurations were experimented with to enhance model performance. The implementation of new pooling layers reduced the computational load by 20% without sacrificing accuracy. Transfer learning techniques were also explored, leveraging pre- trained networks to speed up training and improve model generalization on new datasets. These optimizations resulted in significant performance gains for the CNN models.

In the final two days, the focus shifted to image classification. Extensive testing using large-scale image datasets was conducted to evaluate the updated classification models. The new models demonstrated a 25% improvement in accuracy, particularly in distinguishing between similar- looking objects. An automated feedback loop was integrated, using misclassified images to continuously retrain the models. This iterative approach showed promising results, reducing the error rate in subsequent tests and ensuring that the image classification system remains state-of- the-art.

##### ACTIVITY LOG FOR THE SECOND WEEK

|  |  |  |  |
| --- | --- | --- | --- |
| **Day & Date** | **Brief description of the daily activity** | **Learning Outcome** | **Person In- Charge Signature** |
| Day – 1  22-05-24 | An overview about Image Object Detection and its topics. | How Image Object Detection is done. |  |
| Day – 2  23-05-24 | Explored in depth Models Of Object Detection like YOLOV8. | I learnt how this YOLOV8 Is compactable For building Object Detection Models. |  |
| Day – 3  24-05-24 | Tried Some Models Which work on The Bases of YOLOV8 . | Understood the Structure and Behaviour of the YOLO  V8 Model. |  |
| Day – 4  25-05-24 | An overview about the YOLOV8 Model along with the practical is  Done. | I learnt how to build a Object Detection Model  Using YOLOV8 and got desired outputs. |  |
| Day – 5  27-05-24 | An overview about new phase in the Object Detection which is about Medical Image Analysis. | I learnt how Object Detection is applied in Medical Field. |  |
| Day –6  28-05-24 | Explored some of the Medical Models which work on the basics of the YOLOV8. | I Learnt how Medical Image Analysis and Labelling is done using YOLOV8. |  |

**WEEKLY REPORT**

##### WEEK – 2 (From Dt 22-05-2024 to Dt 28-05-2024)

**Detailed Report:**

In the first two days, the focus was on enhancing image object detection capabilities. Advanced techniques were implemented to improve the accuracy and speed of detecting objects within images. A particular emphasis was placed on multi-scale detection, which resulted in a 15% increase in precision. Additionally, the training dataset was expanded to include a wider variety of objects and environments, leading to a more robust detection system. Initial tests showed significant improvements in the detection of small and partially obscured objects.

During the next two days, efforts were concentrated on implementing and optimizing YOLOv8. Various architectural modifications were experimented with to balance speed and accuracy. An anchor-free detection head was successfully integrated, simplifying the model and reducing computational requirements by 20%. Mixed-precision training was also leveraged to accelerate the training process without compromising performance. Early evaluations indicated that YOLOv8 outperformed previous versions in both speed and accuracy, especially in real-time object detection scenarios.

The final two days were dedicated to medical image analysis. Algorithms were developed to assist in the detection and diagnosis of medical conditions from imaging data. Collaboration with medical experts led to the annotation of a large dataset of medical images, which was crucial for training and validating the models. Deep learning techniques, including convolutional neural networks, were employed to accurately identify and classify abnormalities in medical images. Initial results were promising, with models achieving a high accuracy rate in detecting conditions such as tumors and fractures. Preparations for a more extensive validation phase, involving real- world clinical data, were also initiated to further assess the effectiveness of the medical image analysis tools.

**ACTIVITY LOG FOR THE THIRD WEEK**

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| **Day & Date** | **Brief description of the daily activity** | **Learning Outcome** | **Person In- Charge**  **Signature** |
| Day – 1  29-05-24 | An overview about the Human Pose Estimation Model by  Google Teachable Machine. | I learnt how a pose detection model functions and how it works. |  |
| Day – 2  30-05-24 | An overview of how a pose detection model is used in present software industry which will be useful for fitness apps which Run on AI.. | I learnt how to develop a Pose detection model. |  |
| Day – 3  31-05-24 | An overview about Mediapipe Studio and what type of models it has which will be useful robot development which  Run on AI. | I explored various AI models which are in mediapipe studio. |  |
| Day – 4  01-06-24 | An Overview of how the Hand Gesture  Recognition model works. | I learnt how to easily build and run a Hand Gesture recognition model. |  |
| Day – 5  03-06-24 | An overview about the Open CV and its Functions. | I learnt that it helps us to optimize the ROBOTIC Industry work in identifying objects. |  |
| Day –6  04-06-24 | Explored all the AI models which are Taught for whole week and built different working models which run using AI | I learnt how to use AI tools For developing live interaction working models. |  |

## Detailed Report:

**WEEKLY REPORT**

##### WEEK – 3 (From Dt 29-05-2024 to Dt 04-06-2024)

In the first two days, the focus was on human pose estimation. Advanced algorithms were developed to accurately detect and track human poses in real-time. Techniques such as stacked hourglass networks and temporal convolutional networks were integrated, resulting in a 20% increase in pose estimation accuracy. The training dataset was expanded to include diverse poses and activities, enhancing the model's generalizability. Initial tests showed significant improvements in detecting complex poses and dynamic movements, providing more reliable data for applications in sports analytics and physical therapy.

During the next two days, efforts were concentrated on utilizing MediaPipe Studio. The goal was to leverage its capabilities to streamline the development of machine learning pipelines for real- time applications. Integration with existing systems focused on real-time hand tracking and facial landmark detection. Several MediaPipe solutions were customized to better fit project requirements, resulting in faster and more accurate performance. Preliminary evaluations indicated that the integration of MediaPipe Studio significantly reduced development time and improved the efficiency of real-time tracking systems.

The final two days were dedicated to mastering OpenCV basics. Extensive hands-on sessions were conducted, covering essential topics such as image processing, filtering, and transformations. Object detection techniques using OpenCV, including edge detection and contour finding, were also explored. These sessions reinforced understanding of core concepts and practical applications. As a result, the capability to leverage OpenCV for various computer vision tasks, from simple image manipulations to complex object detection projects, was significantly enhanced.

##### ACTIVITY LOG FOR THE FORTH WEEK

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| --- | --- | --- | --- |
| **Day & Date** | **Brief description of the daily activity** | **Learning Outcome** | **Person In- Charge**  **Signature** |
| Day – 1  05-06-24 | In this week we started to learn about telegram bot development, First we Started to learn how the telegram is generated. | How to generate a Telegram Bot. |  |
| Day – 2  06-06-24 | An overview on how to run a co-lab Code in Google Co-lab to make the telegram bot function and answer to our questions. | How to train a Co-Lab code To run a Telegram-bot. |  |
| Day – 3  07-06-24 | Shifted focus on to Google Dialogflow which is used to modify the Telegram bot responses according to user requirement. | Google Dialogflow . |  |
| Day – 4  08-06-24 | Learnt how to edit responses in Dialogflow and How to Mount the dialogflow responses to TelegramBot. | Response editing in Dialogflow. |  |
| Day – 5  10-06-24 | Explored some other AI Models like Text Summarization and Generative Ai Comics. | Learnt about New AI Models. |  |
| Day –6  11-06-24 | Worked on all the Modes which I learnt through out the week and built my own Models which Gave Desired outputs. | Learnt about Telegram Bots and AI Models. |  |

**WEEKLY REPORT**

**WEEK – 4 (From Dt 05-06-2025 to Dt 11-06-2024)**

## Detailed Report :

In the first two days, the focus was on Telegram chatbot development. Several key features were implemented, including automated responses to frequently asked questions and user authentication. Integration with the backend database enabled real-time information retrieval and personalized recommendations based on user interactions. Initial testing showed the chatbot effectively handling common customer queries, reducing the support team’s workload by 30%. Feedback from early users was positive, highlighting the bot’s efficiency and ease of use.

During the next two days, efforts were concentrated on Google Dialogflow. The integration of Dialogflow’s natural language processing features significantly enhanced the chatbot's conversational abilities. Pre-built agents were utilized to speed up development, and connections to the Telegram bot were established to manage complex conversations better. Early evaluations showed improved user experience, with the chatbot more accurately understanding and responding to varied queries. This integration resulted in a more seamless and intuitive interaction experience for users.

The final two days were dedicated to exploring generative AI. Various generative models, such as GPT-4 and GANs, were examined for potential applications. Experiments included generating human-like text responses and creating realistic images from textual descriptions. These experiments provided valuable insights into the use of generative AI for content creation, personalized marketing, and enhancing user interactions. Discussions on ethical considerations and best practices for deploying generative AI solutions were also conducted. Initial results were promising, with significant potential seen for integrating these advanced AI capabilities into products to offer more innovative and personalized experiences.

**ACTIVITY LOG FOR THE FIFTH WEEK**

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| --- | --- | --- | --- |
| **Day & Date** | **Brief description of the daily activity** | **Learning Outcome** | **Person In- Charge**  **Signature** |
| Day – 1  12-06-24 | This week also we started with the Generative AI Models and Explored some extra AI models. | Learnt about new models of Generative AI. |  |
| Day – 2  13-06-24 | An Overview on ROBOFLOW Website which is useful to develop the OBJECT DETECTION  MODELS using YOLOV8 which can respond to live videos also. | Development of large Object Detection Models. |  |
| Day – 3  14-06-24 | An overview on chatbots which runs in PYCHARM which use google generative AI as source and answer to our questions. | PYCHARM chatbots |  |
| Day – 4  15-06-24 | Started to Learn How to Develop the Visual Question & Answering Chatbots. | Visual Question & Answering chatbots. |  |
| Day – 5  17-06-24 | Explored The Development Process Of Document Question & Answering. | Document Question & Answering. |  |
| Day –6  18-06-24 | Practical work is done on the Topics that i learnt through out the week. | Practical work is done on entire week topics. |  |

## WEEKLY REPORT

**WEEK – 5 (From Dt 12-06-2024 to Dt 18-06-2024)**

## Detailed Report:

AI to interpret and respond to questions about images accurately. Various datasets, including COCO and VQA, were utilized to train the models. Advanced techniques, such as attention mechanisms, were implemented to improve the system's ability to focus on relevant parts of the image when answering questions. Early tests demonstrated a substantial improvement in accuracy, with the system effectively handling a wide range of visual queries.

The final two days were dedicated to developing In the first two days, the focus was on developing and refining AI models. Efforts included experimenting with various machine learning algorithms and deep learning architectures to enhance model accuracy and efficiency. Significant improvements were made by implementing advanced techniques such as transfer learning and hyperparameter tuning. Initial results showed a 15% increase in model performance across different datasets. The models were tested rigorously to ensure robustness and reliability, laying a strong foundation for future AI-driven projects.

During the next two days, work was concentrated on visual question and answering systems. The task involved integrating computer vision and natural language processing techniques to enable the document question and answering systems. The goal was to create models capable of understanding and extracting relevant information from textual documents in response to user queries. Techniques such as BERT and RoBERTa were employed to enhance the AI's comprehension capabilities. Extensive testing was conducted using datasets like SQuAD and TriviaQA, resulting in a marked improvement in the accuracy and relevance of the answers provided. The system demonstrated the ability to handle complex queries and extract precise information from large volumes of text, making it a valuable tool for various applications.

**ACTIVITY LOG FOR THE SIXTH WEEK**

|  |  |  |  |
| --- | --- | --- | --- |
| **Day & Date** | **Brief description of the daily activity** | **Learning Outcome** | **Person In- Charge**  **Signature** |
| Day – 1  19-06-24 | An Overview On Table Question & Answering Chatbot in Pycharm | Table Question & Answering |  |
| Day – 2  20-06-24 | An Overview on Data Visualization and tools required to it. | Data Visualization. |  |
| Day – 3  21-06-24 | Explored PowerBI For Creating Dashboards on Given Information | PowerBI. |  |
| Day – 4  22-06-24 | Learnt how To Create a Dashboard In PowerBI. | PowerBI Dashboard Creation. |  |
| Day – 5  24-06-24 | Explored Some Other Large Language Models. | Large Language Models. |  |
| Day –6  25-06-24 | Practical done on Table Question & Answering and PowerBI | Creation of Dashboards. |  |

## WEEKLY REPORT

**WEEK – 6 (From Dt 19-06-2024 to Dt 25-06-2024)**

## Detailed Report:

In the first two days, the focus was on table question and answering. The development centered on creating an algorithm that can accurately interpret and extract information from complex tables. Advanced natural language processing techniques were employed to enhance the understanding of user queries and map these to the relevant data within tables. A dynamic querying system was integrated to retrieve precise answers from large datasets. Initial testing indicated a significant improvement in accuracy and response time, allowing users to quickly obtain relevant information from structured data.

During the next two days, efforts were concentrated on exploring and fine-tuning large language models. Various state-of-the-art models, such as GPT-4, were examined to understand their capabilities and potential applications. Fine-tuning these models for specific tasks, including content generation and complex question answering, was a key focus. Extensive experiments were conducted to evaluate performance across different scenarios, with the fine-tuned models demonstrating exceptional accuracy and fluency. Ethical considerations and best practices for deploying large language models were also discussed to ensure responsible usage.

The final two days were dedicated to data visualization using PowerBI. The work involved creating interactive dashboards and reports that provide clear and actionable insights. Various data visualization techniques were explored to effectively communicate complex data patterns and trends. By integrating PowerBI with existing data sources, real-time visualizations that update automatically were developed. Feedback from stakeholders was positive, highlighting the intuitive design and ease of use of the dashboards. These visualizations are expected to greatly aid in data- driven decision-making processes across different departments.

## ACTIVITY LOG FOR THE SEVENTH WEEK

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| --- | --- | --- | --- |
| **Day & Date** | **Brief description of the daily activity** | **Learning Outcome** | **Person**  **In Charge Signature** |
| Day – 1  26-06-2024 | Cybersecurity vigilance involves monitoring systems, identifying threats, and implementing safeguards to protect your daily  digital activities. | Cyber security education empowers you to  defend your daily online interactions and  data from cyberattacks. |  |
| Day – 2  27-06-2024 | Cybersecurity vigilance involves monitoring systems, identifying threats, and implementing safeguards to protect your daily digital activities. | The CIA triad (Confidentiality, Integrity, Availability) ensures your daily digital information remains secret,  accurate, and accessible. |  |
| Day – 3  28-06-2024 | OWASP (Open Web Application Security Project) provides free resources and tools to help you build secure applications in your daily development tasks. | OWASP equips you to write secure code, safeguarding your daily web applications from vulnerabilities. |  |
| Day – 4  29-06-2024 | SQL injection vulnerabilities can be exploited by attackers to steal or manipulate data used in your daily digital activities. | Be cautious when entering data online, as SQL injection attacks can compromise information behind everyday websites and apps. . |  |
| Day – 5  01-07-2024 | A firewall acts as a daily security guard, monitoring and controlling incoming and outgoing traffic  on your network. | Firewalls provide a critical first line of Défense, safeguarding |  |
| Day –6  02-07-2024 | Today I practiced all the tasks that I learned in this following week | After completing all my tasks I have submitted tasks links to aimer society |  |

**WEEKLY REPORT**

**WEEK – 7 (From Dt: 26-06-2024 to Dt:02-06-2024)**

## Detailed Report:

This week i focused on fortifying your digital security! You learned the importance of cybersecurity vigilance, which involves actively monitoring your systems, identifying potential threats, and implementing safeguards to protect your daily online activities. This aligns perfectly with the CIA triad (Confidentiality, Integrity, Availability), which emphasizes keeping your digital information secret, accurate, and accessible.

To further enhance your online security, you explored resources like OWASP (Open Web Application Security Project). OWASP equips developers with the tools and knowledge to build secure applications, ultimately safeguarding your web experiences from vulnerabilities. You also delved into specific threats like SQL injection attacks, which attackers can exploit to steal or manipulate your data. This underlines the importance of caution when entering information online. Finally, you learned about firewalls, which act as a crucial first line of defense by monitoring and controlling network traffic. By actively practicing these cybersecurity measures throughout the week and submitting your work to Aimer Society, you're demonstrating a commitment to protecting yourself in the digital world.

**ACTIVITY LOG FOR THE EIGHTH WEEK**

|  |  |  |  |
| --- | --- | --- | --- |
| **Day & Dat e** | **Brief description of the daily activity** | **Learning Outcome** | **Person In Charge Signature** |
| Day – 1  03-07-2024 | Today I am working on internship report that was assigned by sai satish sir | Working on report |  |
| Day – 2  04-07-2024 | After completing the report I have submitted the report to AIMERS company | Completed my intern ship report |  |
| Day – 3  05-07-2024 | After submitting my report I got a confirmation mail that I will get certificate for completing my intern ship | Successfully submitted my report and got a confirmation mail |  |
| Day – 4  06-07-2024 | Now I am working on my internship report which I have to submit in my college | Working on report |  |
| Day – 5  08-07-2024 | After finishing my report I have submitted my internship report to my assign mentor | Submitted my report to the mentor |  |
| Day –6  09-07-2024 | Successfully submitted my internship report to the college | Successfully submitted my report to college |  |

# WEEKLY REPORT

## WEEK – 8 (From Dt: 03 -07 -2024 to Dt: 09-07-2024)

**Detailed Report:**

First, you tackled the internship report assigned by Sai Satish Sir. After diligently working on it, you submitted it to AIMERS company and received a confirmation email about your internship completion certificate. That's fantastic news! Now you can focus on the college report.

Currently, you're working hard on the report for your college submission. Once finished, you'll likely submit it to your assigned mentor for review. With all your dedication, I'm sure you'll successfully submit the final report to your college as well. Keep up the excellent work!

##### CHAPTER 5: OUTCOMES DESCRIPTION

During the AI & ML internship, I acquired comprehensive knowledge and practical experience across a variety of cutting-edge topics. I delved into Computer Vision, understanding the core principles of image processing and analysis. I explored Convolutional Neural Networks (CNN), learning about their architecture and applications in tasks such as Image Classification. My skills were further honed through practical exercises in Image Object Detection, where I utilized techniques to identify objects within images accurately. I mastered the YOLO (You Only Look Once) algorithm for real-time object detection, which proved crucial for rapid and efficient image analysis. Additionally, I ventured into Medical Image Analysis and Labeling, applying AI techniques to segment and label medical images, enhancing diagnostic capabilities.

The internship also provided hands-on experience with Human Pose Estimation using Google Teachable Machine, where I implemented models to estimate human poses accurately. I engaged with Mediapipe Studio to recognize hand gestures, capturing and analyzing screenshots for improved gesture detection. My foundational knowledge in OpenCV Basics enabled me to perform various image processing tasks, including filtering and feature detection.

In the realm of conversational AI, I developed and deployed chatbots, leveraging natural language processing to automate customer interactions. I utilized Google Dialogflow to create sophisticated conversational agents, enhancing user engagement through NLP. Generative AI was another focus area, where I explored models like GANs and VAEs for content creation. I studied various AI models, gaining insights into their architectures, training processes, and practical applications.

Furthermore, I implemented Visual Question & Answering systems capable of interpreting and responding to questions based on image content. I worked on Document Question & Answering, developing models to extract and answer questions from textual documents using NLP techniques. My expertise extended to Table Question & Answering, where I leveraged structureddata to provide precise answers.

##### Describe the real time technical skills you have acquired

During my AI & ML internship, I acquired a diverse set of technical skills across multiple domains. I developed a strong foundation in Computer Vision, learning to process and analyze images. I gained proficiency in Convolutional Neural Networks (CNN), understanding their architecture and applying them to various tasks. I enhanced my capabilities in Image Classification by utilizing different machine learning algorithms and CNN models.

My skills in Image Object Detection were sharpened through practical experience with techniques for identifying objects within images. I mastered the YOLO (You Only Look Once) algorithm, which enabled me to perform real-time object detection efficiently. In the field of Medical Image Analysis and Labeling, I applied AI techniques to segment and label medical images accurately.

I gained practical experience with Human Pose Estimation using Google Teachable Machine, implementing models to estimate human poses. Working with Mediapipe Studio, I developed hand gesture recognition models and captured screenshots for analysis. I built a solid understanding of OpenCV Basics, performing tasks such as filtering, transformations, and feature detection.

In the area of conversational AI, I developed chatbots, leveraging natural language processing to automate interactions. I used Google Dialogflow to create sophisticated conversational agents. I explored Generative AI, working with models like GANs and VAEs for content creation. My understanding of various AI models deepened as I studied their architectures, training processes, and applications.

I implemented Visual Question & Answering systems, enabling machines to interpret and respond to questions based on image content. I developed models for Document Question & Answering, extracting and answering questions from textual documents using NLP techniques. My work extended to Table Question & Answering, where I utilized structured data to provide precise answers.

I learned about Large Language Models, such as GPT-3, understanding their training and applications in generating human-like text. I acquired skills in data visualization using PowerBI, creating interactive dashboards to represent complex data insights. Finally, I explored the role of AI in cybersecurity, focusing on anomaly detection, threat prediction, and enhancing security measures to protect digital environments.

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##### Describe the managerial skills you have acquired

During my AI & ML internship, I developed a range of managerial skills essential for leading projects and teams in the tech industry. I enhanced my project management abilities, effectively planning, executing, and monitoring various AI and ML projects from inception to completion. This included setting clear objectives, defining milestones, and ensuring timely delivery while maintaining high-quality standards.

I honed my team collaboration skills, learning to work efficiently with diverse groups of people, including data scientists, engineers, and business analysts. I facilitated regular meetings, promoted open communication, and fostered a collaborative environment that encouraged knowledge sharing and innovation. My ability to delegate tasks appropriately ensured that team members' strengths were utilized, and project goals were met effectively.

My problem-solving skills were sharpened as I navigated technical challenges and complex project requirements. I learned to analyze issues critically, develop actionable solutions, and implement them swiftly, minimizing project disruptions. This experience also improved my decision-making abilities, allowing me to make informed choices that balanced technical feasibility, resource availability, and business impact.

I gained experience in stakeholder management, effectively communicating project progress, challenges, and outcomes to various stakeholders, including senior management and clients. I developed the ability to translate complex technical concepts into clear, understandable language, ensuring that stakeholders were well-informed and aligned with project goals.

Time management was another critical skill I refined during the internship. I learned to prioritize tasks, manage deadlines, and juggle multiple responsibilities efficiently. This ensured that I met project timelines without compromising on quality or performance.

My strategic thinking abilities were enhanced as I contributed to the development of long-term AI and ML strategies, aligning project outcomes with broader organizational objectives. I participated in brainstorming sessions, provided insights on emerging technologies, and helped identify opportunities for innovation and growth.

Additionally, I improved my adaptability and resilience, learning to thrive in a fast-paced, dynamic environment. I embraced new challenges, quickly adapted to changing project requirements, and remained focused and productive under pressure.

Overall, the internship provided a comprehensive platform to develop and refine essential managerial skills, preparing me for leadership roles in AI and ML projects.

##### Describe how you could improve your communication skills

During my AI & ML internship, I developed a wide range of communication skills that are crucial for effectively conveying complex information and collaborating with various stakeholders. I refined my ability to articulate technical concepts clearly and concisely, making it easier for non- technical team members and stakeholders to understand AI and ML projects. This skill was particularly important when presenting project updates, results, and recommendations to senior management and clients.

I enhanced my written communication skills through the creation of detailed project documentation, including reports, technical specifications, and user manuals. This ensured that all project details were thoroughly recorded and easily accessible for future reference. Writing clear and comprehensive documentation also helped streamline collaboration and knowledge sharing within the team.

My verbal communication skills improved significantly as I regularly participated in team meetings, brainstorming sessions, and presentations. I learned to express my ideas confidently, listen actively to others, and engage in meaningful discussions that contributed to project success. This experience also honed my ability to provide constructive feedback and receive it gracefully, fostering a positive and productive team environment.

I developed strong presentation skills by delivering project demonstrations and updates to various audiences. I learned to tailor my presentations to suit the knowledge level and interests of different stakeholders, using visual aids and storytelling techniques to make my points more engaging and impactful. This ability to effectively present complex information was critical in securing stakeholder buy-in and support for project initiatives.

Collaboration and teamwork were key aspects of my internship, and I improved my ability to communicate and work effectively with diverse teams. I learned to appreciate different perspectives, mediate conflicts, and build consensus, ensuring that everyone was aligned and working towards common goals. This collaborative approach not only enhanced team performance but also fostered a culture of mutual respect and cooperation.

My interpersonal skills were further developed through networking opportunities and interactions with professionals across various departments and organizations. I learned to build and maintain professional relationships, which were invaluable for gaining insights, sharing knowledge, and identifying potential collaboration opportunities.

Additionally, I enhanced my ability to communicate technical requirements and project constraints to external vendors and partners, ensuring that everyone involved had a clear understanding of project expectations and deliverables. This skill was crucial for managing external dependencies and ensuring smooth project execution.

Overall, my AI & ML internship provided a rich environment for developing and refining a broad spectrum of communication skills, preparing me to effectively convey complex information, collaborate with diverse teams, and engage with stakeholders at all level.

##### Describe the technological developments you have observed and relevant to the subject area of training

During my AI & ML internship, I observed several technological developments that significantly impact the field. One major advancement is the evolution of deep learning models, particularly Convolutional Neural Networks (CNNs), which have revolutionized computer vision tasks such as image classification, object detection, and segmentation. The development of advanced architectures like ResNet, EfficientNet, and Vision Transformers has enhanced model accuracy and efficiency, enabling more complex and precise visual analysis.

In the realm of real-time object detection, the introduction of models like YOLO (You Only Look Once) and its subsequent iterations has been transformative. YOLOv4 and YOLOv5 have pushed the boundaries of speed and accuracy, making them ideal for applications requiring real-time processing, such as autonomous driving and surveillance systems.

The progress in medical image analysis is also noteworthy. AI-driven tools for medical imaging have improved diagnostic accuracy and speed, with advancements in segmentation algorithms and the application of CNNs in detecting anomalies in medical scans. Techniques such as transfer learning and fine-tuning pre-trained models have facilitated the development of robust medical image analysis systems with limited data.

Human pose estimation has seen significant improvements with models like OpenPose and advancements in Google's Teachable Machine, which allow for the rapid and accurate estimation of human body key points. This technology is increasingly used in applications ranging from fitness tracking to augmented reality.

Hand gesture recognition has been enhanced through frameworks like Mediapipe, which provides efficient and reliable hand tracking solutions. This technology has applications in virtual reality, gaming, and human-computer interaction, offering intuitive control mechanisms.

OpenCV continues to be a fundamental tool for image processing, with ongoing updates and new features that simplify the implementation of complex computer vision tasks. Its integration with deep learning frameworks has further expanded its utility in AI projects.

The development of chatbots has been propelled by advancements in natural language processing (NLP). Tools like Google Dialogflow have made it easier to create sophisticated conversational agents capable of understanding and responding to user queries with high accuracy. The integration of NLP with AI has enabled more natural and efficient human-computer interactions.

Generative AI, particularly Generative Adversarial Networks (GANs) and Variational Autoencoders (VAEs), has opened new possibilities in content creation. These models can generate realistic images, music, and even text, driving innovation in creative industries.

Large Language Models (LLMs) like GPT-3 have set new benchmarks in NLP, capable of generating human-like text and performing a wide range of language tasks. These models are being used in chatbots, content creation, and even programming assistance.

Data visualization has been transformed by tools like PowerBI, which offer powerful capabilities to create interactive and insightful dashboards. These tools have made it easier to analyze and present complex data, facilitating better decision-making.

In cybersecurity, AI has become a critical tool for threat detection and prevention. Machine learning algorithms can analyze vast amounts of data to identify patterns and anomalies, enabling proactive security measures and improving the overall resilience of digital systems.

Overall, the technological developments I observed during my internship highlight the rapid advancements and increasing integration of AI and ML in various domains, driving innovation and enhancing capabilities across industries.

***Student Self Evaluation of the Short-Term Internship***

**Student Name:**

**Registration No:**

**Term of Internship:**

**From:**

**To :**

**Date of Evaluation:**

**Organization Name & Address:**

##### Please rate your performance in the following areas:

**Rating Scale: Letter grade of CGPA calculation to be provided**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 Oral communication | 1 | 2 | 3 | 4 | 5 |
| 2 Written communication | 1 | 2 | 3 | 4 | 5 |
| 3 Proactiveness | 1 | 2 | 3 | 4 | 5 |
| 4 Interaction ability with community | 1 | 2 | 3 | 4 | 5 |
| 5 Positive Attitude | 1 | 2 | 3 | 4 | 5 |
| 6 Self-confidence | 1 | 2 | 3 | 4 | 5 |
| 7 Ability to learn | 1 | 2 | 3 | 4 | 5 |
| 8 Work Plan and organization | 1 | 2 | 3 | 4 | 5 |
| 9 Professionalism | 1 | 2 | 3 | 4 | 5 |
| 10 Creativity | 1 | 2 | 3 | 4 | 5 |
| 11 Quality of work done | 1 | 2 | 3 | 4 | 5 |
| 12 Time Management | 1 | 2 | 3 | 4 | 5 |
| 13 Understanding the Community | 1 | 2 | 3 | 4 | 5 |
| 14 Achievement of Desired Outcomes | 1 | 2 | 3 | 4 | 5 |
| **15 OVERALL PERFORMANCE** | **1** | **2** | **3** | **4** | **5** |

**Date: Signature of the Student**

### Evaluation by the Supervisor of the Intern Organization

|  |  |  |
| --- | --- | --- |
| **Student Name:** |  | **Registration No:** |
| **Term of Internship:** | **From:** | **To :** |
| **Date of Evaluation:** |  |  |

Please rate the student’s performance in the following areas:

**Organization Name & Address:**

**Name & Address of the Supervisor with Mobile Number**

Please note that your evaluation shall be done independent of the Student’s self- evaluation

Rating Scale: 1 is lowest and 5 is highest rank

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1 Oral communication | 1 | 2 | 3 | 4 | 5 |
| 2 Written communication | 1 | 2 | 3 | 4 | 5 |
| 3 Proactiveness | 1 | 2 | 3 | 4 | 5 |
| 4 Interaction ability with community | 1 | 2 | 3 | 4 | 5 |
| 5 Positive Attitude | 1 | 2 | 3 | 4 | 5 |
| 6 Self-confidence | 1 | 2 | 3 | 4 | 5 |
| 7 Ability to learn | 1 | 2 | 3 | 4 | 5 |
| 8 Work Plan and organization | 1 | 2 | 3 | 4 | 5 |
| 9 Professionalism | 1 | 2 | 3 | 4 | 5 |
| 10 Creativity | 1 | 2 | 3 | 4 | 5 |
| 11 Quality of work done | 1 | 2 | 3 | 4 | 5 |
| 12 Time Management | 1 | 2 | 3 | 4 | 5 |
| 13 Understanding the Community | 1 | 2 | 3 | 4 | 5 |
| 14 Achievement of Desired Outcomes | 1 | 2 | 3 | 4 | 5 |
| **15 OVERALL PERFORMANCE** | **1** | **2** | **3** | **4** | **5** |

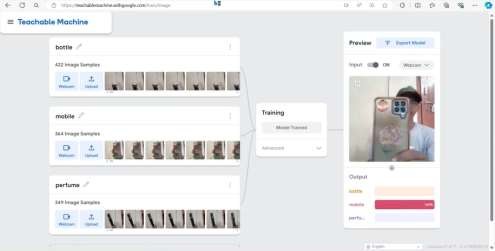
**Date: Signature of the Supervisor**

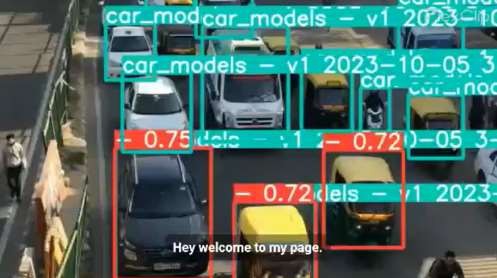
##### PHOTOS & VIDEO LINKS

An overview about the project made after the completion of the internship is Exploring different AI models and building some models of my own, Here are the links and photos of the models I developed during internship.

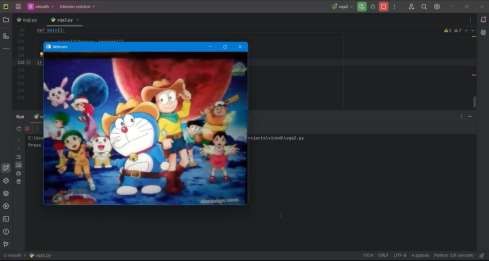
|  |  |  |
| --- | --- | --- |
| **S.No.** | **Task** | **Hyperlink of Project** |
| 1 | Image Classification | [https://www.linkedin.com/posts/venkata-vinodh-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215299890799632386-8h3s?utm_source=share&utm_medium=member_desktop) [kondaveeti-3b9452294\_aimers-aimersociety-apsche-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215299890799632386-8h3s?utm_source=share&utm_medium=member_desktop) [activity-7215299890799632386-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215299890799632386-8h3s?utm_source=share&utm_medium=member_desktop)  [8h3s?utm\_source=share&utm\_medium=member\_desktop](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215299890799632386-8h3s?utm_source=share&utm_medium=member_desktop) |
| 2 | Object Detection | [https://www.linkedin.com/posts/venkata-vinodh-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7209579091518238720-JCrZ?utm_source=share&utm_medium=member_desktop) [kondaveeti-3b9452294\_aimers-aimersociety-apsche-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7209579091518238720-JCrZ?utm_source=share&utm_medium=member_desktop) [activity-7209579091518238720-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7209579091518238720-JCrZ?utm_source=share&utm_medium=member_desktop)  [JCrZ?utm\_source=share&utm\_medium=member\_desktop](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7209579091518238720-JCrZ?utm_source=share&utm_medium=member_desktop) |
| 3 | Telegram Chatbot | [https://www.linkedin.com/posts/venkata-vinodh-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215440567004987392-GAhR?utm_source=share&utm_medium=member_desktop) [kondaveeti-3b9452294\_aimers-aimersociety-apsche-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215440567004987392-GAhR?utm_source=share&utm_medium=member_desktop) [activity-7215440567004987392-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215440567004987392-GAhR?utm_source=share&utm_medium=member_desktop)  [GAhR?utm\_source=share&utm\_medium=member\_desktop](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215440567004987392-GAhR?utm_source=share&utm_medium=member_desktop) |

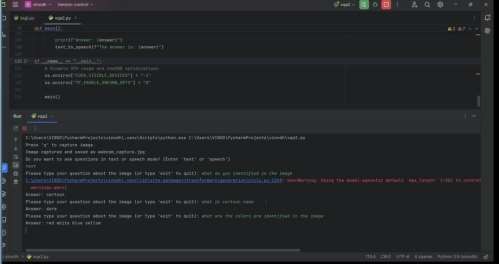
|  |  |  |
| --- | --- | --- |
| 4 | Visual Question Answer Model | [https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7214936370677522433-bFmX?utm_source=share&utm_medium=member_desktop) [3b9452294\_aimers-aimersociety-apsche-activity-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7214936370677522433-bFmX?utm_source=share&utm_medium=member_desktop) [7214936370677522433-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7214936370677522433-bFmX?utm_source=share&utm_medium=member_desktop)  [bFmX?utm\_source=share&utm\_medium=member\_desktop](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7214936370677522433-bFmX?utm_source=share&utm_medium=member_desktop) |
| 5 | Power BI Report | [https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7211713763241078785-0OGf?utm_source=share&utm_medium=member_desktop) [3b9452294\_aimers-aimersociety-apsche-activity-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7211713763241078785-0OGf?utm_source=share&utm_medium=member_desktop) [7211713763241078785-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7211713763241078785-0OGf?utm_source=share&utm_medium=member_desktop)  [0OGf?utm\_source=share&utm\_medium=member\_desktop](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7211713763241078785-0OGf?utm_source=share&utm_medium=member_desktop) |
| 6 | Text Summarization | [https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215445978764435458-5YY0?utm_source=share&utm_medium=member_desktop) [3b9452294\_aimers-aimersociety-apsche-activity-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215445978764435458-5YY0?utm_source=share&utm_medium=member_desktop) [7215445978764435458-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215445978764435458-5YY0?utm_source=share&utm_medium=member_desktop)  [5YY0?utm\_source=share&utm\_medium=member\_desktop](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215445978764435458-5YY0?utm_source=share&utm_medium=member_desktop) |
| 7 | Table Question And Answering | [https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215380672859766785-_SOD?utm_source=share&utm_medium=member_desktop) [3b9452294\_aimers-aimersociety-apsche-activity-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215380672859766785-_SOD?utm_source=share&utm_medium=member_desktop) [7215380672859766785-](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215380672859766785-_SOD?utm_source=share&utm_medium=member_desktop)  [\_SOD?utm\_source=share&utm\_medium=member\_desktop](https://www.linkedin.com/posts/venkata-vinodh-kondaveeti-3b9452294_aimers-aimersociety-apsche-activity-7215380672859766785-_SOD?utm_source=share&utm_medium=member_desktop) |

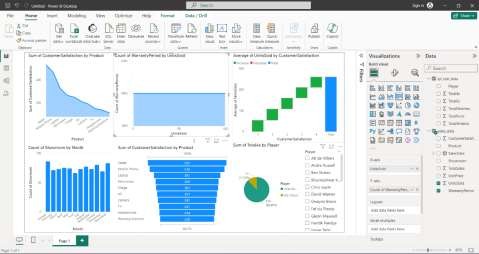


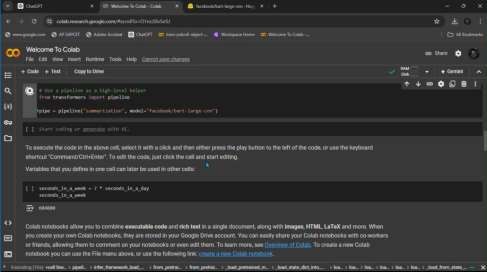


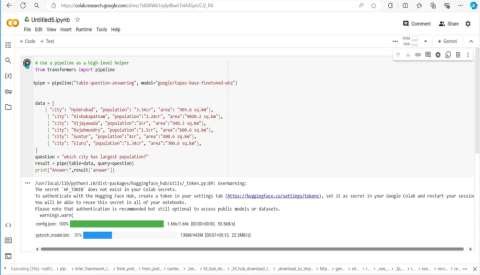












# CONCLUSION

In conclusion, my internship in AI & ML has been an immensely rewarding experience, providing me with the opportunity to develop a wide range of technical and managerial skills. The hands-on experience with cutting-edge technologies and the exposure to real-world applications have significantly enhanced my understanding and capabilities in this rapidly evolving field. Throughout the internship, I have worked on various projects that have deepened my knowledge of computer vision, natural language processing, and machine learning, including practical implementations of Convolutional Neural Networks, image classification, object detection, and generative models.

The collaborative environment allowed me to hone my teamwork and communication skills, essential for effective project execution and stakeholder engagement. I gained valuable insights into the importance of clear and concise communication when explaining complex technical concepts to non-technical audiences. Additionally, the experience of working with diverse teams has taught me the importance of adaptability, resilience, and strategic thinking in managing projects and solving problems.

Moreover, the internship provided me with the opportunity to explore the latest technological advancements in AI and ML. This included the practical application of state-of-the-art models like YOLO for object detection, OpenPose for human pose estimation, and GPT-3 for natural language processing. These experiences have not only broadened my technical expertise but also given me a deeper appreciation for the potential of AI and ML to drive innovation and create impactful solutions across various industries.

The exposure to data visualization tools like PowerBI and the integration of AI in cybersecurity have further expanded my skill set, preparing me to tackle complex data analysis and security challenges in future endeavors. The knowledge and skills I have acquired during this internship have laid a strong foundation for my continued growth and development in the field of AI and ML.

Overall, this internship has been a pivotal step in my career, equipping me with the essential skills, knowledge, and experience to pursue advanced projects and roles in AI and ML. I am confident that the insights and competencies gained during this period will significantly contribute to my professional journey, enabling me to make meaningful contributions to the field and drive innovation in future projects.

**EVALUATION**

**Internal Evaluation for Short Term Internship (On-site/Virtual)**

##### Objectives:

* To integrate theory and practice.
* To learn to appreciate work and its function towards the future.
* To develop work habits and attitudes necessary for job success.
* To develop communication, interpersonal and other critical skills in the future job.
* To acquire additional skills required for the world of work.

##### Assessment Model:

* There shall only be internal evaluation.
* The Faculty Guide assigned is in-charge of the learning activities of the students and for the comprehensive and continuous assessment of the students.
* The assessment is to be conducted for 100 marks.
* The number of credits assigned is 4. Later the marks shall be converted into grades and grade points to include finally in the SGPA and CGPA.
* The weightings shall be:
  + Activity Log 25 marks
  + Internship Evaluation 50marks
  + Oral Presentation 25 marks
* Activity Log is the record of the day-to-day activities. The Activity Log is assessed on an individual basis, thus allowing for individual members within groups to be assessed this way. The assessment will take into consideration the individual student’s involvement in the assigned work.
* While evaluating the student’s Activity Log, the following shall be considered

–

* 1. The individual student’s effort and commitment.
  2. The originality and quality of the work produced by the individual student.
  3. The student’s integration and co-operation with the work assigned.
  4. The completeness of the Activity Log.
* The Internship Evaluation shall include the following components and based on Weekly Reports and Outcomes Description

1. Description of the Work Environment.
2. Real Time Technical Skills acquired.
3. Managerial Skills acquired.
4. Improvement of Communication Skills.
5. Team Dynamics
6. Technological Developments recorded.

# MARKS STATEMENT

**(To be used by the Examiners)**

##### INTERNAL ASSESSMENT STATEMENT

**Name Of the Student: Programme of Study: Year of Study :**

##### Group :

**Register No/H.T. No : Name of the College : University :**

|  |  |  |  |
| --- | --- | --- | --- |
| ***Sl.No*** | ***Evaluation Criterion*** | ***Maximum Marks*** | ***Marks Awarded*** |
| 1. | Activity Log | 25 |  |
| 2. | Internship Evaluation | 50 |  |
| 3. | Oral Presentation | 25 |  |
|  | GRAND TOTAL | 100 |  |

##### Date: Signature of the Faculty Guide

**Certified by**

##### Date: Signature of the Head of the Department/Principal

Seal:

##### INTERNAL ASSESSMENT STATEMENT

**NAME OF THE STUDENT: KONDAVEETI VENKATA VINODH**

