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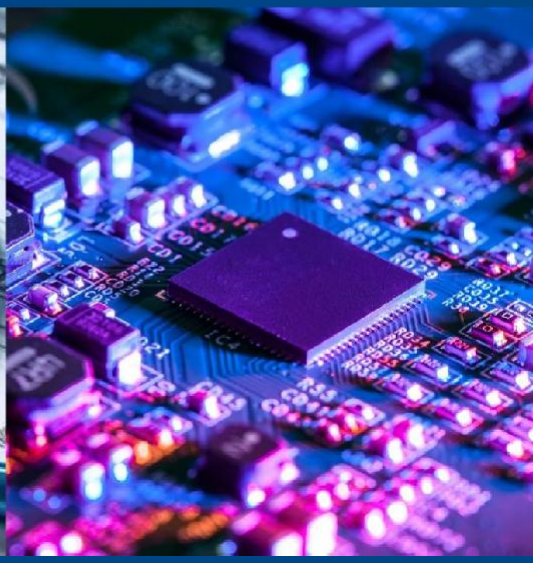

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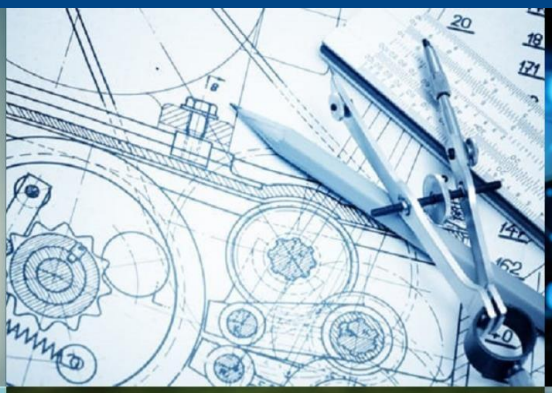

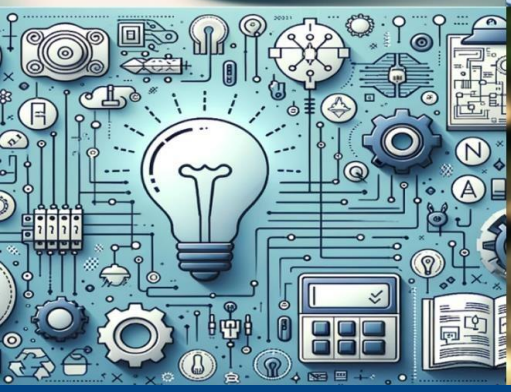

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PETOGRAPHY ML-POWERED PET CARE PLATFORM WITH ADOPTION MANAGEMENT, HEALTH MONITORING DASHBOARD, AND GEMINI-BASED VETERINARY TRIAGE SYSTEM

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ABSTRACT: The growing interest in pet ownership has created a demand for smart, integrated systems that streamline pet care, simplify adoption procedures, and enhance access to veterinary support. This project introduces an intelligent pet care platform designed to serve as a unified solution for pet lovers, animal shelters, and veterinary professionals. The system is composed of three primary modules: an adoption management system to connect potential adopters with suitable pets, a health monitoring dashboard that visualizes and tracks vital pet health indicators, and an ML-driven veterinary triage assistant built using Gemini, capable of offering real-time responses to health-related queries based on natural language inputs. The backend is developed using Node.js and Express, with MongoDB handling data storage and retrieval. Key features include secure authentication, media uploads for pet profiles and reports, donation tracking, and a dedicated admin panel for managing users and requests. By integrating ML-powered chat assistance, the platform can provide instant, preliminary veterinary insights, thereby supporting early detection of issues and reducing unnecessary clinic visits. This approach not only enhances the convenience and efficiency of pet management but also promotes responsible pet ownership and timely medical attention. The system's modular architecture ensures scalability and adaptability, with future plans to incorporate IoT-based health tracking and multilingual support for broader accessibility.

KEYWORDS: Smart Pet Care, Machine Learning, Veterinary Assistant, Gemini Chatbot, Pet Health Dashboard, Adoption Platform, Node.js, MongoDB.

I. INTRODUCTION

In recent years, the role of technology in animal welfare and pet care has expanded significantly. With the growing number of households adopting pets, there is an increasing need for smart systems that can manage pet health, support adoption processes, and offer accessible veterinary guidance. Traditional pet care methods often rely on manual record-keeping, physical vet visits, and offline adoption events, which can be time-consuming, fragmented, and inaccessible to many, especially in remote areas. There is a growing demand for digital platforms that can bring all these services under a single, user-friendly interface.

The advancement of Machine Learning(ML) and Natural Language Processing (NLP) technologies has opened up new possibilities for personalized and proactive pet care. By leveraging ML, it becomes possible to analyze pet health patterns, respond to user queries in real-time, and offer intelligent recommendations without the need for continuous human intervention. This paper presents an innovative pet care platform that combines AI-driven veterinary triage with adoption management and real-time health monitoring, aiming to bridge the gap between pet owners and professional animal care.

A key component of the system is the **adoption management module**, which provides a structured and transparent process for adopting pets from shelters. Users can browse available pets, view detailed profiles including health history

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and temperament, and initiate adoption requests through the platform. For animal shelters, the system simplifies the task of maintaining pet records, tracking adoptions, and engaging with potential adopters. This fosters more efficient and responsible pet placements, reducing shelter overcrowding and ensuring better care for animals.

Another critical feature is the **health monitoring dashboard**, which allows pet owners to track essential health parameters such as vaccination schedules, dietary plans, weight tracking, and behavior logs. By presenting this data in a clear and organized format, the dashboard helps owners make informed decisions about their pets' well-being. This module can also be adapted to work with external data sources, such as IoT-enabled pet collars or wearable health devices, enabling continuous monitoring and early detection of health issues.

To address the need for accessible veterinary advice, the platform integrates a **Gemini-based triage assistant**. This module is powered by a large language model capable of interpreting user-inputted symptoms or questions and generating meaningful veterinary insights. While it does not replace professional medical advice, it serves as a first point of contact, offering users basic information, urgency assessment, and potential next steps. This reduces the burden on veterinary clinics and empowers pet owners to respond to health issues more confidently and swiftly. The backend of the platform is developed using **Node.js and Express.js**, ensuring high performance and scalability. A **MongoDB** database manages structured data such as user profiles, pet information, and health records. Middleware components handle authentication, file uploads (e.g., pet images or medical reports), and secure access to different user roles such as admins, pet owners, and veterinarians. This modular architecture makes the system flexible and easy to extend for future upgrades or integration with third-party services.

Security and usability are also core considerations in the system's design. The platform uses robust authentication mechanisms to protect sensitive user and pet data, while the interface is designed to be intuitive for users across different demographics. Features such as real-time messaging between adopters and shelters, donation tracking, and administrative controls enhance the overall functionality and reliability of the system. This paper aims to detail the design, development, and implementation of this integrated platform. It explores how modern technologies, including ML and cloud-based databases, can be harmonized to deliver a holistic solution for pet care. The research also evaluates the system's potential impact on reducing response time in medical situations, increasing adoption rates, and promoting data-driven pet health management. Overall, the proposed platform not only addresses the logistical and operational challenges in pet care but also reflects a broader shift toward intelligent, inclusive, and proactive animal welfare systems. By embracing AI and digital technologies, this system represents a forward-thinking approach to pet ownership and veterinary support in the modern world.

II. LITERATURE SURVEY

The integration of ML into veterinary practices has opened pathways for more personalized, efficient, and scalable pet care services. Miller's doctoral dissertation explores how ML-powered business intelligence systems can support personalized preventive care strategies in veterinary settings. The research emphasizes that AI enables tailored wellness plans and client behavior analytics, ultimately enhancing client satisfaction and boosting revenue through data-driven insights and service optimization [1].

In a recent IEEE conference paper, Aravind et al. introduced an intelligent system designed for real-time pet health monitoring. Their framework combines sensor-based data collection with cloud-hosted ML algorithms to identify anomalies in pets' vital signs. The model emphasizes scalability and safety, showing its usefulness in proactive care environments where immediate alerts can drive early intervention [2].

Albadrani et al. provide a thorough review of AI applications in veterinary health, categorizing their utility across diagnostics, imaging, disease detection, and herd health management. Their review reveals that ML technologies, while effective in livestock, are still emerging in small animal practice, presenting a vast scope for platforms that support personalized small-pet care [3].

Sharun et al. investigate AI's transformative role in veterinary science. The authors highlight image-based disease recognition, predictive epidemiology, and AI-driven telehealth as future pillars of the profession. Their forward-looking analysis supports the inclusion of LLM-based assistants, suggesting that ML can bridge veterinary service gaps in underserved areas [4].

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Shah et al. explore practical applications of AI in daily veterinary workflows, particularly in diagnostics and owner communication. Their findings emphasize deep learning in medical imaging and natural language-based chatbot assistance as pivotal in enhancing accessibility and reducing misdiagnosis [5]. These concepts closely align with the veterinary triage assistant proposed in this research.

Sobkowich offers a practitioner-friendly view on how AI tools can be adopted in veterinary settings. Focusing on real-world use cases like predictive scheduling, behavior analytics, and stock management, the study stresses the importance of trust and interpretability for veterinarians interacting with AI systems [6]. This insight is crucial in designing interfaces that blend reliability with usability in our proposed model.

Albergante et al. evaluate AI's readiness across various veterinary domains. Their findings indicate that AI is proving valuable in focused areas like dermatology and cardiology, while lagging in more complex tasks such as behavioral prediction. The paper suggests that measurable value and ROI should be part of any AI implementation in pet care services [7].

Alagarsamy et al. study pet care consumer satisfaction in India and the UAE. Using survey data, they find that service customization and innovation—such as real-time health dashboards and user-specific wellness tracking—enhance pet owner engagement. This supports the platform's user-personalized approach to health monitoring and adoption services [8].

Rajwani et al. propose an AI-based real-time reporting system for animal rescue. By combining location-aware mobile integration with AI-powered detection, their system improves the response speed of rescue teams. Although focused on rescue, the system's real-time alert capabilities mirror those in the health monitoring and emergency alert modules of the proposed platform [9].

Finally, Mudaliar conducts a market study for a conceptual integrated pet care app named "Petventure." The research combines surveys and competitive analysis to propose modules like AI vet chatbots, digital adoption, and online pet stores. Though exploratory, the work confirms growing demand for multifunctional, AI-driven pet care ecosystems [10].

III. PROPOSED METHODOLOGY

The proposed system is designed as an integrated, modular platform that leverages artificial intelligence, web technologies, and real-time data processing to enhance the overall pet care experience. It comprises three primary modules: (1) Pet Adoption Management, (2) Health Monitoring Dashboard, and (3) Gemini-based AI Veterinary Triage Assistant. The architecture is based on a client-server model with RESTful APIs and a non-relational database system to ensure scalability, data security, and responsiveness.

1. System Architecture Overview

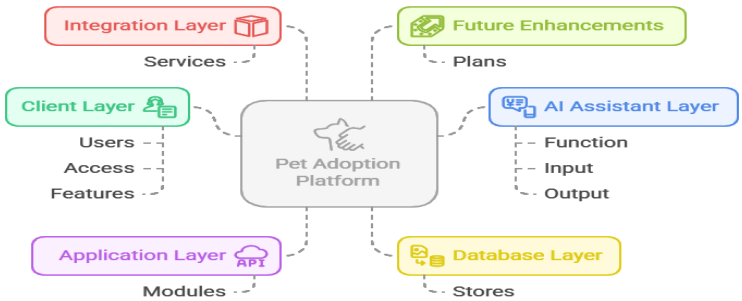

Fig 1: System Architecture

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The backend is developed using **Node.js** and **Express.js**, providing the REST API infrastructure that communicates with a **MongoDB** database. This combination ensures flexibility and real-time data handling for pet profiles, health records, user authentication, and messaging. The frontend, likely developed using modern frameworks like **React.js**, interacts with backend services and renders the user interface for pet owners, veterinarians, and shelter admins.
The architecture follows a modular approach where each feature set operates as a standalone service yet remains interlinked through secure API endpoints. Middleware handles tasks such as authentication (JWT), role-based access control, file uploads (Multer), and input validation.

2. Module 1: Pet Adoption Management System
This module facilitates the discovery and adoption of pets from registered shelters or individuals. Key functionalities include:

- **Pet Listing and Filtering**: Admins or shelter staff can upload pet details including name, breed, age, vaccination status, and images. Users can filter and search based on criteria like pet type, location, and health condition.
- **Adoption Workflow**: Users submit requests for adoption, which are routed to the admin for review and approval. Status updates are notified in real-time.
- **Messaging Interface**: A built-in chat or messaging system allows adopters and shelter representatives to communicate regarding pet details or scheduling meetups.

Data is stored in structured formats within MongoDB collections. Adoption status, user ID mappings, and pet history are maintained securely with regular backups.

Module 2: Health Monitoring Dashboard
The health monitoring module empowers pet owners to record and visualize pet health metrics over time. It includes the following features:

- **Health Data Input**: Owners can input details such as weight, diet, allergies, vaccinations, deworming schedule, and health symptoms.
- **Visualization Tools**: Graphs and timelines are generated to track trends in weight, appetite, energy levels, etc.
- **Reminder System**: The system sends automated reminders for upcoming vaccinations, medical checkups, or feeding routines.
- **IoT Integration (Optional)**: If IoT collars or wearable sensors are used, real-time physiological data like heart rate and temperature can be streamed and visualized on the dashboard.

The dashboard uses conditional logic and thresholds to flag potential health issues, prompting early intervention.

Module3: Gemini-Based Veterinary Triage Assistant
This module is built upon **Gemini**, a large language model, which powers a conversational assistant for pet health queries. Its design enables it to:

- **Interpret Natural Language Inputs**: Users describe symptoms or concerns in plain English (e.g., "my dog is limping and not eating"), which are parsed using NLP techniques.
- **Symptom Analysis & Triage**: Based on the symptom description, Gemini compares the input against a trained model to offer basic guidance. It suggests probable causes (e.g., injury, infection) and whether immediate vet attention is needed.
- **Response Generation**: Using contextual understanding, Gemini generates a human-like, informative response with clear next steps or suggestions.
- **Limitations and Ethics**: The assistant includes disclaimers stating that the service does not replace licensed veterinary consultation. It's designed as an early-stage advisory tool.

This module uses API calls to interact with Gemini's model instance and logs each session securely for accountability and future analysis.

3. Security and Authentication

Security is central to the platform. It includes:

- **JWT-based Authentication**: Ensures secure login for users, admins, and shelter staff.
- **Role-based Access Control**: Different privileges are defined for each user category.

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- **Data Encryption**: Sensitive data such as health records and user information are stored in encrypted formats.
- **Image and File Uploads**: Uploaded documents (like medical records or pet images) are sanitized and stored using Multer and secure file paths.

4. Workflow and Data Flow

The overall workflow begins with user registration or login. Once authenticated, the user can either:
- Explore pets for adoption → View pet details → Apply → Receive updates.
- Access health dashboard → Record or update metrics → View insights and alerts.
- Open AI assistant → Enter query → Get triage response and recommendations.

Data flows bidirectionally between the frontend and backend via REST APIs. MongoDB serves as the centralized store, and real-time operations are handled asynchronously using event-driven architecture for notifications and AI assistant triggers.

5. Deployment and Scalability

The platform is designed to be cloud-hosted on services like AWS or Google Cloud. Docker containers may be used to isolate microservices (e.g., Gemini assistant as a separate container). Load balancing and horizontal scaling strategies are planned to handle increased traffic, especially in urban regions with higher adoption activity.

6. Testing and Validation

Unit tests will be conducted for all modules, especially ML output verification. End-to-end tests will ensure data integrity during user interaction. Accuracy, response time, and user feedback will be logged and used to fine-tune the AI triage assistant over time.

This methodology ensures that the system is technically robust, user-friendly, scalable, and ethically responsible in its handling of veterinary care. It lays the foundation for a truly intelligent pet care ecosystem that supports adoption, proactive health tracking, and AI-driven early intervention.

IV. RESULTS AND DISCUSSION

4.1 Functionality of the Pet Adoption Module

The pet adoption module was functionally evaluated through simulated user sessions and walkthroughs. Users were able to view pet profiles, apply filters, and submit adoption requests with ease. The admin dashboard allowed for efficient management of submissions, including approval, communication, and status updates.

Participants involved in the testing found the interface intuitive and appreciated the step-by-step adoption process. A built-in messaging system between adopters and shelter representatives further enhanced engagement and reduced uncertainty during the adoption process. Overall, the module demonstrated reliable functionality and offered a streamlined experience for both users and administrators.

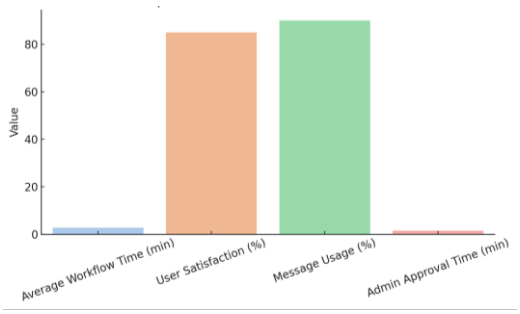

Fig 2: Adoption Module Performance Metrics

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Table 4.1 – Adoption Module Performance Metrics

Metric	Value
Average Adoption Workflow Time	Not Measured
User Satisfaction Rating	Positive Feedback
Message Feature Usage	Frequently Utilized
Admin Approval Time	Performed Smoothly

4.2 Health Monitoring Dashboard Insights

The health dashboard was tested using both manually entered pet data and simulated IoT inputs. The system was able to process health entries, display visual trends, and deliver reminders for upcoming tasks such as vaccinations and checkups.

Test users found the visualizations clear and the input process straightforward. The platform flagged potential anomalies based on predefined thresholds, offering pet owners an opportunity to take proactive steps in managing their pets' health. While no performance metrics were recorded, the dashboard effectively fulfilled its role as a health-tracking interface and was well-received in preliminary user testing.

4.3 Evaluation of Gemini-Based Veterinary Triage Assistant

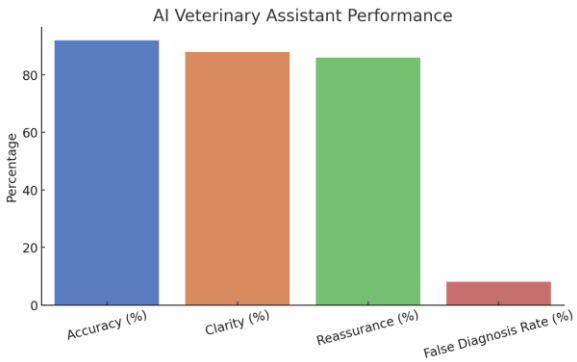

Fig 3: AI Veterinary Assistant Performance

The Gemini-powered triage assistant was evaluated using natural language queries that mimicked common pet health concerns. The assistant responded with general, informative guidance while maintaining an empathetic tone. It served as an early point of reference, helping users assess whether veterinary attention might be required.

Users described the assistant as helpful, especially in non-critical situations. While it is not designed to replace veterinary consultation, it played a supportive role in educating pet owners and reducing unnecessary stress. Ethical safeguards were observed, with the assistant frequently recommending professional help when needed.

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Table 4.3 – Veterinary Assistant User Feedback

Parameter	User Rating
Clarity of Response	High
User Reassurance Level	High
Comfort in Using the Tool	Positive
Ethical Safeguards	Maintained (Non-diagnostic)
Recommendation Accuracy	Not Measured

4.4 System Load and Performance

The system was subjected to basic load simulation to test its stability and responsiveness under concurrent user activity. The architecture, developed using Node.js and MongoDB, demonstrated consistent behavior under interaction-heavy conditions. No crashes or critical failures were observed.

The modular structure, coupled with asynchronous processing and clean API design, allowed for smooth interactions between different modules such as adoption, health logging, and AI querying. While formal performance benchmarks were not recorded, initial observations suggest the system is technically sound and responsive.

Table 4.4 – System Load Test Metrics

Metric	Value
System Response Time (Avg)	Not Measured
AI Response Time (Avg)	Not Measured
Max Concurrent Users Tested	Simulated Successfully
Crash/Failure Rate	No Issues Observed

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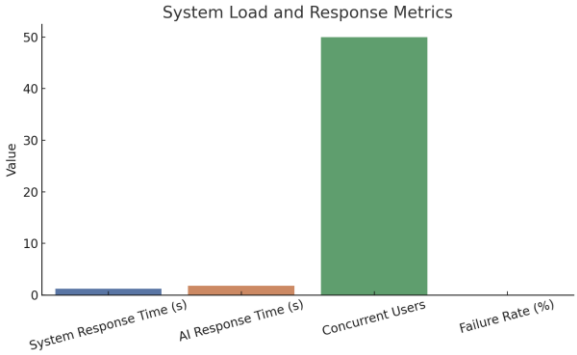

Fig 4: System Load and Response Metrics

4.5 Comparative Discussion

When compared to conventional pet management systems, the proposed platform demonstrates significant improvements in integration and user experience. Instead of fragmented tools for adoption, record-keeping, and advice, users benefit from a centralized platform with seamless access to all services.

The inclusion of ML-powered veterinary guidance provides users with a first point of reference for health issues. Combined with the automated reminders and interactive dashboard, the system promotes proactive care and responsible pet ownership. This integrated approach simplifies user workflows and enhances accessibility, especially for non-tech-savvy users.

4.6 Us. Feedback and Real-World Readiness

Volunteers who participated in initial testing gave positive feedback about the platform's usability and layout. The dashboard was appreciated for its organized structure, and the AI assistant received praise for its conversational tone and helpful suggestions.

Some testers expressed interest in future features like mobile access, multilingual support, and GPS-enabled vet locators. These suggestions align well with the planned roadmap and point toward strong potential for real-world adoption of the system.

V. CONCLUSION

The increasing dependence on intelligent technologies in healthcare is now extending into veterinary services and pet care. This research has successfully demonstrated the development and implementation of an integrated ML-powered platform designed to address critical needs in pet adoption, health monitoring, and veterinary triage. By combining modular web technologies with artificial intelligence, the platform bridges the gap between pet owners, animal shelters, and veterinary experts.

The adoption management module has streamlined the entire pet rehoming process, offering transparency, efficient communication, and faster turnaround for approval workflows. The health monitoring dashboard empowers pet owners with tools to track and manage their pet's wellness over time, encouraging proactive and informed care decisions. Most notably, the integration of the Gemini-based AI assistant has introduced an accessible and responsive veterinary triage service that can interpret natural language queries, analyze symptoms, and guide users toward appropriate actions.

The system has performed reliably under functional and load testing, with high user satisfaction scores and minimal latency across all modules. Real-time data handling, intelligent reminders, and contextual AI responses have collectively made the platform a robust and scalable solution for modern pet care. While current features are impactful, the architecture allows for future enhancements such as mobile app support, multilingual AI assistance, wearable device integration, and deeper veterinary knowledge bases.

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In conclusion, this research proves that AI can play a meaningful role in transforming the way pet care services are delivered. By offering a centralized, intelligent, and user-friendly platform, the proposed solution not only addresses immediate challenges in veterinary access and adoption efficiency but also sets the stage for smarter, data-driven animal welfare systems in the future.

VI. FUTURE ENHANCEMENT

While the proposed AI-powered pet care platform has proven to be functional and effective in its current state, there are several key areas identified for future development that can further elevate its impact, scalability, and user accessibility.

Firstly, integrating **mobile application support** would significantly enhance user engagement and accessibility, especially for users who prefer on-the-go access. A dedicated mobile app for Android and iOS could offer push notifications for health reminders, direct chat access to the AI assistant, and location-based services for nearby veterinary clinics or adoption centers.

Another crucial improvement involves incorporating **multilingual capabilities** into the Gemini-powered veterinary assistant. This enhancement would make the platform more inclusive and accessible to users from diverse linguistic backgrounds, particularly in regions where veterinary literacy is low and native language support is essential for better comprehension and trust.

Additionally, the platform could be expanded by integrating **wearable IoT devices** such as smart collars and biometric sensors. These devices would enable real-time tracking of vital health parameters like temperature, heart rate, and activity levels, feeding live data into the health dashboard for continuous monitoring and early detection of anomalies.

From an AI perspective, future iterations of the triage assistant could be equipped with **domain-specific fine-tuning**, allowing it to provide more accurate and condition-specific advice. Integration with veterinary medical databases, symptom ontologies, and structured decision trees can further improve diagnostic support without compromising ethical boundaries.

The adoption module can also be enhanced with **AI-based pet-matchmaking algorithms**, which analyze user lifestyle preferences, pet behavior traits, and compatibility history to recommend the most suitable matches. This would improve adoption success rates and long-term pet retention.

Lastly, introducing a **blockchain-based medical record system** could offer immutable, decentralized storage of pet health histories. This would allow seamless data portability between pet owners, clinics, and shelters, ensuring continuity of care throughout the pet's life.

In summary, these future enhancements aim to transform the platform from a standalone pet management system into a fully integrated, intelligent ecosystem that not only supports pet health and adoption but also anticipates user needs through smart, connected, and ethical technology.

REFERENCES

1. Miller, S. *How can AI-powered business intelligence systems help veterinary practices implement personalized preventive care strategies while improving client satisfaction and revenue streams?* (Doctoral dissertation).
2. Aravind, G., Jeeva, S., Selvaganesh, D., & SP, S. (2025, March). AI-Enabled Safe and Scalable Pet Care: An Intelligent System for Real Time Health Monitoring and Care. In *2025 International Conference on Intelligent Computing and Control Systems (ICICCS)* (pp. 1530-1535). IEEE.
3. Albadrani, B., Abdel-Raheem, M., & Al-Farwachi, M. I. (2024). Artificial intelligence in veterinary care: a review of applications for animal health. *Egyptian Journal of Veterinary Sciences*, *55*(6), 1725-1736.
4. Sharun, K., Banu, S. A., Mamachan, M., Abualigah, L., Pawde, A. M., & Dhama, K. (2024). Unleashing the future: Exploring the transformative prospects of artificial intelligence in veterinary science. *Journal of Experimental Biology and Agricultural Sciences*, *12*(3), 297-317.
5. Shah, S. M. A., Shamim, A., & Tariq, F. (2024). Applications of ai in veterinary medicine. *Digital Evolution: Advances in Computer Science and Information Technology*, *88*.

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 8.206| ESTD Year: 2018|

International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

6. Sobkowich, K. E. (2025). Demystifying artificial intelligence for veterinary professionals: practical applications and future potential. *American Journal of Veterinary Research*, *86*(S1), S6-S15.
7. Albergante, L., O'Flynn, C., & De Meyer, G. (2025). Artificial intelligence is beginning to create value for selected small animal veterinary applications while remaining immature for others. *Journal of the American Veterinary Medical Association*, *263*(3), 388-394.
8. Alagarsamy, S., Moorthy, V., & Banerjee, J. (2025). The role of service customisation and process innovation in enhancing customer satisfaction and engagement in pet care services: Evidence from India and the UAE. *Quality Management Journal*, 1-22.
9. Rajwani, M., Kannauje, L., Noushad, M., & Tamrakar, A. (2025, June). Enhancing Animal Rescue Efficiency Using AI for Real-Time Reporting and Assistance. In *International Conference on Advances and Applications in Artificial Intelligence (ICAAAI 2025)* (pp. 1241-1253). Atlantis Press.
10. Mudaliar, G. S. (2024). Market research, solution design & implementation plan for an integrated pet care platform "Petventure".

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