Statement of Work: Project VetVision AI

Introduction

This Statement of Work (SOW) defines the requirements, deliverables, and operational framework for the "VetVision AI" project. This initiative leverages advanced computer vision to assist pet owners and veterinarians in the early detection of common pet sicknesses via image analysis.

Statement of work template

Title

Project VetVision AI: Advanced Image Understanding for Canine and Feline Diagnostics

Abstract

This project involves the development and implementation of a specialized AI model designed to interpret visual symptoms in pets (specifically dogs and cats) to provide preliminary diagnostic indicators. Craig Frint ("Contractor") will lead the development of the computer vision pipeline, focusing on dermatological, ocular, and dental symptom recognition. The work includes model architecture design, training on Google's proprietary datasets, and integration with the Google Cloud Vertex AI ecosystem. The goal is to provide a high-confidence "early warning" system for pet owners before seeking professional veterinary care.

Value

The total estimated value of this contract is **$120,000 USD**. This includes all professional services, technical development, documentation, and the final handover of the intellectual property. The value is reflective of the high degree of specialization required in both medical imaging AI and the Google Cloud infrastructure. Costs are fixed for the scope defined herein, covering an estimated 6-month development cycle.

Scope

The scope of this project includes the end-to-end development of the VetVision inference engine. Specifically:

- Selection and optimization of a transformer-based vision architecture.
- Training and fine-tuning models on a dataset of 500,000+ annotated veterinary images.
- Development of a RESTful API to serve predictions with confidence scores.
- Implementation of a "Self-Service" prototype mobile interface for internal testing.
- Six months of post-deployment monitoring and model drift analysis.
- **Excluded:** Hardware procurement, public marketing campaigns, and physical veterinary

clinical trials.

Type

This is a **work-for-hire** agreement as described by U.S. California law. All results of the services, including code, weights, documentation, and training scripts developed by Craig Frint, shall be the sole and exclusive property of Google. Craig Frint performs this work as an independent contractor.

Payment

The total budget of $120,000 will be paid in four installments upon the completion of specific milestones:

1. **Project Initiation (20% - $24,000):** Upon signing and environment setup.
2. **Alpha Model Delivery (30% - $36,000):** Successful recognition of top 5 dermatological conditions with >80% accuracy.
3. **Beta Integration (30% - $36,000):** Successful integration with Google Cloud Vertex AI and API finalization.
4. **Final Handover & Sign-off (20% - $24,000):** Completion of documentation and final model performance report.

Purpose

Objectives

- **Accuracy:** Achieve a top-1 precision of >92% for 20 common pet ailments.
- **Latency:** Ensure model inference time is under 400ms on standard mobile hardware.
- **Scalability:** Design a system capable of handling 10,000 concurrent requests.
- **Accessibility:** Provide clear, non-technical diagnostic summaries for end-users.

Performance

Performance will be measured using the following Key Performance Indicators (KPIs):

- **Model Precision/Recall:** Measured against a "Gold Standard" set of vet-validated images.
- **Uptime:** The diagnostic API must maintain 99.95% availability during the beta testing phase.
- **User Error Rate:** False positive rates must be kept below 5% to avoid unnecessary owner distress.

Factors

- **Data Quality:** Success is dependent on the quality of labels provided by Google's veterinary partners.
- **Compute Availability:** Continuous access to Google TPU/GPU clusters for model training.

- **Stakeholder Feedback:** Timely reviews from the Google Health and Google Cloud AI leads.

Who does what

People

- **Craig Frint:** Lead AI Engineer (Contractor).
- **Dr. Sarah Jenkins:** Lead Veterinary Consultant (Google).
- **Mark Zhao:** Project Manager (Google).
- **Google Cloud Ops Team:** Infrastructure support.

Roles

- **Contractor (Craig Frint):** Responsible for model selection, training, and API development.
- **Work Authority (Mark Zhao):** Responsible for milestone approval and resource allocation.
- **Subject Matter Expert (Dr. Jenkins):** Responsible for verifying the medical accuracy of AI outputs.

Responsibilities

Task / Area	Craig Frint	Mark Zhao	Dr. Jenkins
Model Architecture	Responsible	Informable	Consultable
Data Annotation	Consultable	Omittable	Accountable
Milestone Approval	Omittable	Accountable	Consultable
API Integration	Responsible	Informable	Omittable

Context

Past

Google has previously explored human-centric AI diagnostics through "DermAssist." The success of that project led to the demand for a similar tool in the multi-billion dollar pet care industry.

Present

Currently, pet owners often rely on "Dr. Google" (text search), which often leads to inaccurate

self-diagnosis. VetVision AI seeks to provide a visual, evidence-based alternative.

Future

The project is intended to eventually integrate with the Google Nest Cam ecosystem for passive pet health monitoring (e.g., detecting a pet limping or scratching in real-time).

Planning

Requirements

The Contractor shall deliver:

1. A Python-based training pipeline using TensorFlow or PyTorch.
2. Exported model files in SavedModel and TFLite formats.
3. Comprehensive API documentation (Swagger/OpenAPI).
4. A weekly progress report detailing model accuracy trends.

Specifications

- Code must adhere to the Google Python Style Guide.
- Models must be compatible with mobile edge deployment (TFLite).
- All data handling must comply with Google's internal privacy standards for user-uploaded images.

Work breakdown structure (WBS)

1. **Phase 1:** Data exploration and preprocessing (Weeks 1-4).
2. **Phase 2:** Base model training and architecture search (Weeks 5-12).
3. **Phase 3:** Fine-tuning and veterinary validation (Weeks 13-18).
4. **Phase 4:** Cloud integration and stress testing (Weeks 19-24).

Applicable standards

- **ISO/IEC 23053:** Framework for Artificial Intelligence (AI) utilizing Machine Learning (ML).
- **HIPAA (Applied Context):** While not human data, "Best Practice" data privacy will be maintained.

Method and source of acceptance

All deliverables are subject to inspection by the Work Authority (Mark Zhao). The final model must pass a "Holdout Test" where it is evaluated against a secret dataset of 5,000 images unknown to the Contractor.

Reporting requirements

A 30-minute status meeting will be held every Tuesday at 10:00 AM PST via Google Meet. A written summary must be submitted to the Project Manager 2 hours prior to the meeting.

Other terms and conditions

Authorities

- **Work Authority:** Mark Zhao, Senior Project Manager, Google.
- **Contracting Authority:** Google Procurement Department.

Client's obligations

- Provide access to Google Cloud Platform (GCP) and Vertex AI.
- Grant access to the "PetHealth-Internal" image database.
- Provide feedback on draft models within 48 hours of submission.

Contractor's obligations

- Maintain strict confidentiality regarding Google's proprietary AI techniques.
- Ensure all code is original or properly licensed (Open Source).
- Return all temporary access credentials upon project completion.

Location of work

The work will be performed remotely at the Contractor's location, with the requirement of being available during Pacific Standard Time (PST) business hours for collaboration.

Special requirements: Non-Compete / Exclusivity

Medical Industry Exclusivity: As a condition of this contract, Craig Frint agrees that during the term of this SOW, he shall not provide services, consult for, or engage in any projects related to the medical, veterinary, or healthcare diagnostic industry for any other entity. This clause is to ensure the protection of Google’s trade secrets and to prevent any conflict of interest during the development of Project VetVision AI.

Schedule

Expected start date and completion date

- **Start Date:** October 1, 2023.
- **Expected Completion:** March 31, 2024.

Sign-off

NOTE: Before signing the Statement of Work, if you have any questions or concerns, please call the Work Authority indicated above to negotiate any issues.

If you agree to the requirements of this Statement of Work, please sign and date the document which will be accepted as your proposal by Google, and return to my attention.

Printed Name: Craig Frint

Signature: _____

Date: _____

Printed Name: Mark Zhao (Google Work Authority)

Signature: _____

Date: _____