

Scope of Work Document

Project Title: Predictive Health Insurance Model for Shield Insurance

Client: Shield Insurance

Service Provider: AtliQ AI

Project Overview

AtliQ AI will develop a predictive model for Shield Insurance to estimate health insurance premiums based on factors like age, smoking habits, BMI, and medical history. The project has two phases:

1. **Phase 1 (MVP):** Build and deploy a predictive model with a Streamlit application.
 2. **Phase 2:** Develop infrastructure for straight-through processing (STP) of insurance quotes (detailed planning and estimation for this phase will be done later).
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Phase 1: MVP Development

Objective:

- Develop a high-accuracy (>97%) predictive model. The percentage difference between the predicted and actual value on a minimum of 95% of the errors should be less than 10%.
- Deploy the model in the cloud so that an insurance underwriter can run it from anywhere.
- Create an interactive Streamlit application that an underwriter can use for predictions.

Scope of Work:

1. **Data Collection and Preprocessing**
 - Collect and clean labeled datasets.
 - Perform exploratory data analysis (EDA).
2. **Model Development**
 - Train and evaluate multiple models.
 - Optimize the best model for accuracy.
3. **Model Deployment**
 - Deploy the model on a cloud platform.
 - Ensure security and scalability.
4. **Streamlit Application Development**
 - Build an interactive app for inputting factors and displaying predictions.

5. Testing and Validation

- Rigorous testing and validation with real-world data.

6. Documentation and Training

- Provide documentation and training for underwriters.

Deliverables:

- Trained model, deployed model, Streamlit app, documentation, and training materials.
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Project Timeline

Phase 1:

- Data Collection and Preprocessing: **2 weeks**
 - Model Development and Evaluation: **4 weeks**
 - Deployment and Application Development: **3 weeks**
 - Testing, Validation, Documentation, and Training: **2 weeks**
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Project Management

Product Owner: Nick Puri

Technical Lead: Tony Sharma

Data Scientist: Peter Pandey

Client Representative: Andrea Patel

Communication Plan:

- Weekly progress meetings.
 - Bi-weekly updates to Shield Insurance stakeholders.
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Budget and Payment Terms

Phase 1:

- Total Cost: 30000 \$
- Payment Schedule: 50% upfront, 50% upon completion.

Acceptance Criteria

Phase 1:

- Successful deployment of the model and application.
- Model meets accuracy requirements 97 % minimum.
- Application usable by underwriters.

Signatures

Shield Insurance Representative: _____ Date: _____

AtliQ AI Representative: _____ Date: _____