AI Research Report

Daniel Ly

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# Introduction

## Background

Azure Beach Surf & Skate, a retail outlet with multiple stores and an online presence, is seeking to enhance its competitive advantage through further expansion. The company recently conducted a successful trial of Atlassian Jira and Confluence, leveraging these tools for product planning and cross-team collaboration. This experience has prompted an interest in implementing AI technologies to automate tasks within the sales and marketing department.

### Purpose

The purpose of this report is to identify and recommend suitable AI, ML, and DL technology options for automating work tasks in the sales and marketing department of Azure Beach Surf & Skate. The goal is to streamline operations, enhance customer experience, and boost sales efficiency while considering the company's existing infrastructure and openness to various AI technologies.

# Existing organisational AI technologies and processes

## AI, ML, DL Technologies

Azure Beach Surf & Skate do not have any prior experience with AI, ML and DL technologies apart from their recent trial of Atlassian Jira and confluence AI powered features. It stands that they are very interested in leveraging these emerging technologies.

### Atlassian Jira and confluence

Atlassian Jira and Confluence, which include AI-powered features. These tools are used for product planning, cross-team collaboration, and automating tasks. Atlassian Intelligence offers capabilities such as content generation, summarization, and natural language automation across various departments.

# Research

## Suitable options

### Forecastio

We can use data analytics tools to combine historical sales data with weather forecasts from Forecastio. This integrated data can help identify patterns where certain weather conditions correlate with increased sales of specific products. For example, warmer weather might increase demand for surf gear, while cooler weather could boost skateboarding equipment sales.

### HubSpot

HubSpot's tools can help prioritize leads and improve sales forecasting accuracy. This allows Azure Beach Surf & Skate to focus on high-potential customers and set realistic revenue goals.

### Dialogflow

Implementing AI-powered chatbots with Dialogflow can automate customer interactions, providing instant support and improving customer experience.

## Comparison Table

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Option 1:** | **Option 2:** | **Option 3:** |
| Service | Forecastio | HubSpot Lead Scoring | Dialogflow |
| Type | Sales Forecasting with Deep Learning | Lead Scoring with Machine Learning | Customer Service with AI-powered Chatbots |
| Costs | Starts at $149/month | Starts at $20/month | $0.001/second of audio |
| Integration with other systems | integrating with HubSpot CRM for real-time analytics and pipeline optimization | Integrates with HubSpot CRM, providing predictive lead scoring to prioritize high-quality leads | Dialogflow also offers API access, allowing developers to create custom integrations with various other platforms and services |
| Knowledge or skills needed to set up and use | Basic Python programming skills to install and use the Python wrapper  Understanding of API usage and integration  Familiarity with JSON data structures  Basic data analysis skills to interpret forecasts | Understanding of CRM systems, particularly HubSpot  Knowledge of lead qualification criteria and sales processes  Ability to define and implement scoring rules based on customer attributes and behaviors  Basic data analysis skills to interpret lead scores | Understanding of natural language processing (NLP) concepts  Knowledge of API usage and conversational AI and chatbot design  Familiarity with one or more of Dialogflow's integration platforms (e.g., Google Assistant, Slack, Facebook Messenger) |
| Security and privacy | Implements HTTPS encryption for all interactions with the platform  Encrypts and backs up data to multiple data center availability zones  Uses AES 256 encryption for file storage and database-level encryption  Conducts regular security updates and patches  Employs third-party security experts for continuous testing and quarterly assessments  Complies with GDPR regulations  Has a privacy policy detailing how personal data is handled on their website | Offers sensitive data features for Enterprise users to store protected information securely  Allows creation of sensitive data properties for specific use cases  Complies with GDPR, but users should specify data usage for lead scoring in their consent management systems  Provides options for data redaction and retention through security settings | Implements security settings at the project level to configure data redaction and retention  Requires specific permissions for users to update security settings  Complies with Google's overall privacy policy and API terms  Was previously registered with the Privacy Shield scheme, but this may no longer be sufficient for GDPR compliance  May transfer personal data outside the EEA, which could raise GDPR compliance concerns similar to those faced by Google Analytics |

# Advantages and Disadvantages

## Heading 2

### Heading 3

# Risks

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# References

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