



# Bayshore Intelligence Solutions

"A **360° Intelligent** Application Development Company"

# Corporate Profile

[www.bayshoreintel.com](http://www.bayshoreintel.com)



# WHY CHOOSE BAYSHORE

Using deep domain expertise of our software developers, we create impactful digital solutions that drive meaningful change with a strategic vision.



## Approach

From ideation to delivery, and ongoing support, we cover the full lifecycle of enterprise application design, integration, and management through our established framework.



## Domain Expertise

We possess exceptional domain expertise and in-depth knowledge of niche technologies: from solution architecture to firefighting projects.



## A-Class Team

With 80% of all employees are qualified with Master's degree or higher from the most coveted institutes, we leverage our deep technology knowledge and unparalleled software engineering expertise to ensure digital transformation maturity across the enterprise.



## Client-Centricity

Bayshore's boutique format allows us to maintain a highly customized approach, build a long-term partnership, and remain focused on specific tasks at hand.



## Time-To-Market

High level expertise and several solutions accelerators enable fast product rollout, quick customizations, and smooth delivery. As a result, you get reduced development costs with speedier market entry.

because we stand for “Excellence”

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# CUSTOM SOFTWARE DEVELOPMENT LIFECYCLE

We employ best practice processes and development methodologies as a foundation for rapid building of cutting-edge technology solutions in a structured and methodical way.



## Planning

We collect all the relevant information from the customer to develop custom software development solutions as per their expectation.



## Designing

The system and documents are prepared as per the requirement specifications. This helps us define overall system architecture and technology stack.



## Defining

Once the requirement analysis phase is completed, the next step is to define and document software needs.



## Building

Developers start to build the entire system by writing code using the chosen programming language, techniques, and methodologies.



## Testing

Evaluating the quality of software with the aim of finding and fixing defects.



## Deployment

The final software is released and checked for deployment issues, if any.



## Maintenance

According to the service level agreement, we ensure that needs continue to be met and that the system continues to perform as per the specification mentioned in the first phase.

# OUR SERVICES



Application  
Services &  
Modernization



Data Science &  
AI Services



Cyber Security



Enterprise  
Transformation  
Services



Infrastructure  
and Cloud Services



Blockchain  
Services

# Capability Snapshot

Few of the many projects we have worked on ↓

## Business Challenges:

- Lack of readiness and preparedness for crisis or disaster situations.
- Manual and time-consuming processes for planning, managing, and conducting training and exercising events.
- Complexity and inefficiency in crisis or disaster response management due to multiple vertices involved in the process.
- Limited insights and information available for predicting and preventing damages due to disaster.
- Risk of financial damage, property damage, and life risks due to inadequate crisis management and response.
- Inability to quickly respond to evolving situations and difficulty in evaluating and improving crisis response plans.
- Proactive crisis management by providing predictive insights.

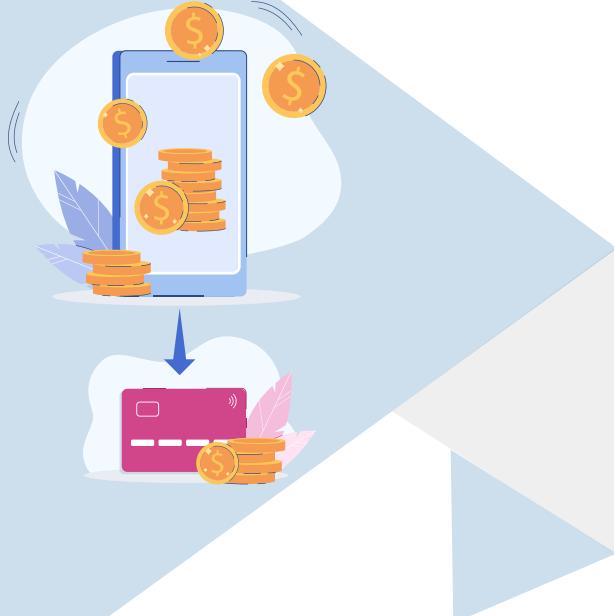
## Approach/Solution:

- Our solution is a platform that utilizes geodata analysis and other advanced technologies to manage crisis situations. The platform comprises three main routes - Exercise Planning & Management, Crisis Management and Response, and Crisis Predictions & Actionable Insights.

## Outcome/Benefits:

- By centralizing event management and automating tasks, we've heightened readiness and streamlined communications among stakeholders for more efficient crisis response.
- Real-time insights fuel swift, informed decision-making, enhancing our ability to respond effectively to emergencies.
- Our approach leverages situational intelligence for better crisis management, integrating decision support, reporting, and planning tools to mitigate risks to life, property, and finances.
- Automation and comprehensive situational awareness speed up response times and improve resource utilization, ensuring preparedness and minimizing waste.
- Predictive insights and real-time data increase safety, helping protect people and assets, while also enabling more effective reputation and cost management by minimizing damage and associated expenses.





## ► Business Challenges:

- Cryptocurrency holders often face challenges when attempting to use their digital assets for everyday purchases, as many traditional merchants do not accept cryptocurrencies directly.
- Cross-border transactions can be cumbersome, expensive, and time-consuming, especially when dealing with various fiat currencies and conversion rates.
- Ensuring the security of transactions and user funds is crucial, as the crypto space is susceptible to various cyber threats and fraud.

## ► Approach/Solution:

- On-demand card creation.
- Bulk card creation.
- Global accessibility.
- User-friendly interface.
- Multi-currency and country support.
- Real-time order and alerts.
- Virtual card delivery.

## ► Outcome/Benefits:

- Users experience a streamlined process for converting and using their cryptocurrencies for everyday fiat transactions, enhancing the overall utility of their digital assets.
- This platform opens up opportunities for global transactions, providing users with the flexibility to make purchases anywhere in the world.
- Cryptocurrency holders gain greater control and accessibility to their funds, empowering them to use digital assets for various financial activities.

## ► Business Challenges:

- Before engaging with Bayshore Intelligence Solution, Customer faced several challenges in managing employee's payroll cards (Similar to Debit cards) for different organizations efficiently. The traditional methods for card management were cumbersome, leading to increased strain on various organization's HR and finance departments, as well as a less-than-optimal their employee experience.

## ► Approach/Solution:

- Intuitive Card Management: Employees can effortlessly review card transactions, access card details, and view CVV through a user-friendly interface, providing instant visibility into financial transactions.
- Pin Management: Employees can change and reset pins directly within the app, empowering them to control their card security seamlessly.
- Lost or Stolen Cards: The app facilitates the quick reporting of lost or stolen cards and the straightforward ordering of replacements, eliminating stress and inconvenience.
- Card Activation: Streamlined card activation processes ensure a smooth onboarding experience for new employees or those ordering replacement cards.
- Efficient Registration Process: During registration, employees can conveniently order a new card, streamlining the initial setup and ensuring prompt commencement of payroll management.

## ► Outcome/Benefits:

- Payroll management processes are now streamlined, reducing the administrative burden on HR and finance teams.
- The app's convenience and flexibility have led to increased employee satisfaction and engagement.
- Security features, like pin management & quick reporting of lost or stolen cards, have bolstered overall financial security.
- Efficiency gains achieved through the app have translated into tangible cost savings for Customer.





## ► Business Challenges:

- Unregulated Crypto market
- Most of the crypto tokens provide pseudo-anonymity
- Attracts different types of illegal activities
- Law enforcement and investigating agencies have a constant challenge dealing with ever-increasing domain knowledge and inadequate tools.
- No limit on wallet (account) creations
- KYC is not made mandatory for Crypto transactions

## ► Approach/Solution:

- The first component deals with case management and related features like adding/ reporting a case, searching for a case from the knowledge base based on different filters, creating links between different cases, etc.
- The second component provides ML prediction-based insights along with different analysis for any individual wallet address. In the backend, a Machine Learning pipeline has been built to ingest data at large volume in real-time, pre-process the data as per different requirements, and then use model inference in different scenarios to provide valuable insights.
- In the third component, a Graph DB interface has been built where ML inferences have also been integrated. One can interact with the graphs to derive discernible insights without writing any query code.

## ► Outcome/Benefits:

- Case management system for Digital Forensics
- Insights on wallet balance; track balance over time
- Insights and track transaction frequency of any wallet address
- Money flow tracking between wallet addresses
- Entity clustering of wallet addresses based on transactional information

# Intelligent Cyber Security Monitoring System



## ■ Business Challenges:

- Existing code repos cannot detect unwanted access to codebase/s
- Not being able to identify where malware is in a body of code and who inserted them
- Inability to maintain a secure and access-based system to monitor all codebases in one place
- Cannot provide security against any insertion or activation of malware in near-real-time

## ■ Approach/Solution:

- Bayshore developed a user-friendly solution that addresses all the problems listed above. We developed a proprietary system where we inserted specialized digital signatures within a body of code.
- These signatures are linked through one-way cryptographic hash functions. Whenever any changes are made in that code body, we verify it against our digital signatures and if any sign of unauthorized change is found, however small it may be, our system sounds the alarm and sends a notification of the same to all the authorized users.

## ■ Outcome/Benefits:

- Near real-time identification of any intrusion and notification to the authorized personnel
- Role-based control over the entire software development process
- Protect the intellectual properties (IP) at the time of cyber attacks
- Using this cyber security solution, organizations can have total role-based control over production code and oversight of the whole development process.
- During development, this platform was designed to safeguard developer written codes and the business process of the company.
- Product's AI-powered Insights help identify any Suspicious Activity (for example, malicious code injection) and facilitate necessary action.





## ► Business Challenges:

- Current search methods in information retrieval are not user friendly
- Large number of documents make searching for a particular information difficult and time-consuming
- Since a query can point to multiple similar documents to retrieve the correct information, the search space needs to be restrained properly
- Inability to preserve users' context and relevant information from previous queries.
- Not being able to manage document access to different user roles and organizations

## ► Approach/Solution:

- The AI-ML solution is made of two levels. In the first layer, questions and answer pairs are generated and stored in a database for each new document that is deposited into the repository. The second layer of the solution is more detailed. This layer enables the extraction of relevant portions of a document in addition to the retrieval of information.
- Developed and deployed the chatbot as an extension. Also, built an admin panel as part of the product. The admin panel is a web application that helps in user management and data management- user can upload their data and start the pre-processing pipeline from here. Every uploaded document is stored in an embedded vector form. Another question-generating module was prepared, which once executed, creates question-answer pairs from the documents and stores it in the database. This pre-generated data is used to retrieve responses much faster. A much more complex model is also built, which can provide long answers for a given query.

## ► Outcome/Benefits:

- Automate information retrieval process in a more precise Q&A format.
- Increased customer engagement in both B2B and B2C segments.
- Helps in reducing time and effort of users, by many folds

# AI-enabled Summarization And Paraphrasing Tool



## ■ Business Challenges:

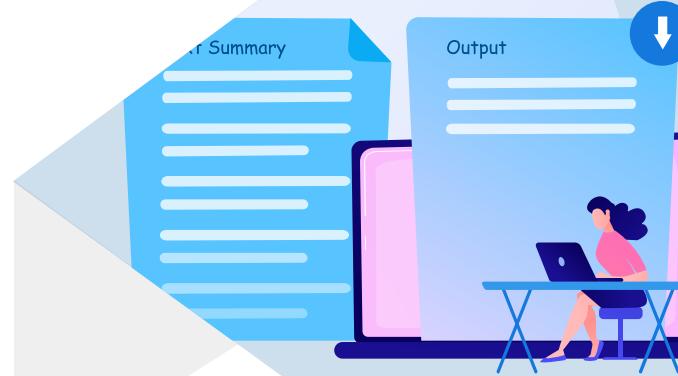
- Age old problems of manually extracting the summary of lengthy text-based documents or audio files leading to unnecessary wastage of time and effort.
- Lack of proper AI-driven tools to precisely Summarize and Paraphrase text without human intervention

## ■ Approach/Solution:

- Developed and deployed two models that are used to solve problems. Both are transformer-based models that are quite adept at language-based tasks. One model is fine-tuned to extract key sentences from a given input text and the other to change the sentence structure (by means of using similar words, changing the syntax, etc.) while retaining the meaning, intact. In both cases, the input texts are pre-processed in the backend before feeding into the model. Similarly, after the model outputs the desired text, post-processing steps are implemented to ensure proper completion sentence and minimize grammatical errors, as much as possible.
- Inclusion of features like uploading different document format (pdf, doc, txt) instead of manually inserting the input text, a simple OCR (Optical Character Recognition) module is also integrated to allow document scanning .

## ■ Outcome/Benefits:

- Consizely helps to summarize large documents with different modes (or settings), thus saving a huge amount of time for doing the same task. Paraphrasing helps you with writing tasks such as report writing etc.





## ► Business Challenges:

- An easy-to-use and understand user interface.
- Managing and maintaining master data of different parameters
- Absolve unwanted access
- High security to keep users' data secured

## ► Approach/Solution:

- Bayshore took up the challenge to overcome all the problems listed above and make an application that handles both user-friendliness and diminishes all the problems a regular user faces. We developed an application that takes minimal effort to register and track one's progress. The App is designed to provide seamless streaming of different exercise videos to ease users' know how about the exercise

## ► Outcome/Benefits:

- Users can easily register on the system
- Users can track their daily progress & diet chart with just the click of a button
- Easy to create a workout regime
- A search engine for exercises that provides a smooth and seamless search experience

## ► Business Challenges:

- The usual procedure for reporting and monitoring the energy output as well as the weather parameters was manual.
- After all values were reported, one had to manually aggregate the data for deriving key insights
- The manual process was error-prone, often lead to the wrong business decisions
- Since there was no standardized procedure and data template; new asset/ plant onboarding was problematic and time-consuming

## ► Approach/Solution:

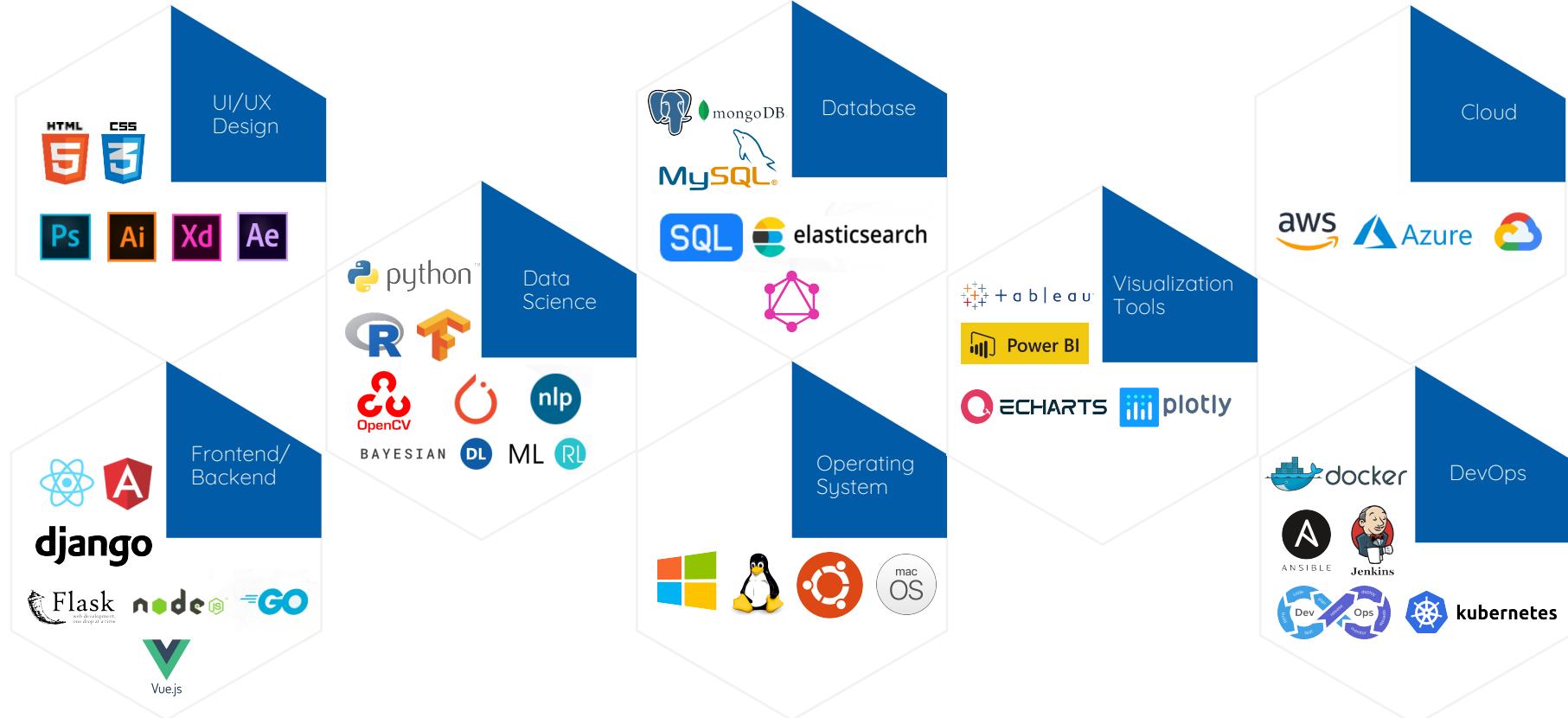
- Bayshore worked along with another hardware partner who built the IoT ecosystem for the different plants (assets). They exposed APIs for transmitting solar energy output and Solar irradiance data. Bayshore developed a solution that is capable of ingesting these API data in a fault-tolerant manner and populating them in a cloud database. ETL steps are also implemented in the cloud before inserting the data into the database.
- Once the database is ready and capable of ingesting data near-real-time (every 5-6 minutes), BI dashboards are built for analyzing and visualizing key insights and other important KPIs based on business requirements. Separate dashboards are also built for monitoring the data stream and bounds?

## ► Outcome/Benefits:

- The primary benefit of this solution is automation of a lot of processes that were manual before and thus saving a lot of time and resources. Integrating the IoT system along with the cloud database help in reporting actual data without much lag or delay. By making the data inserted into the cloud database, it becomes much easier for monitoring the output data and detecting if there are any issues with energy output. Analyzing the data and calculating KPIs becomes easier due to integration with the cloud database. Due to a standard data template, it is also much easier and faster to onboard new assets and their details.

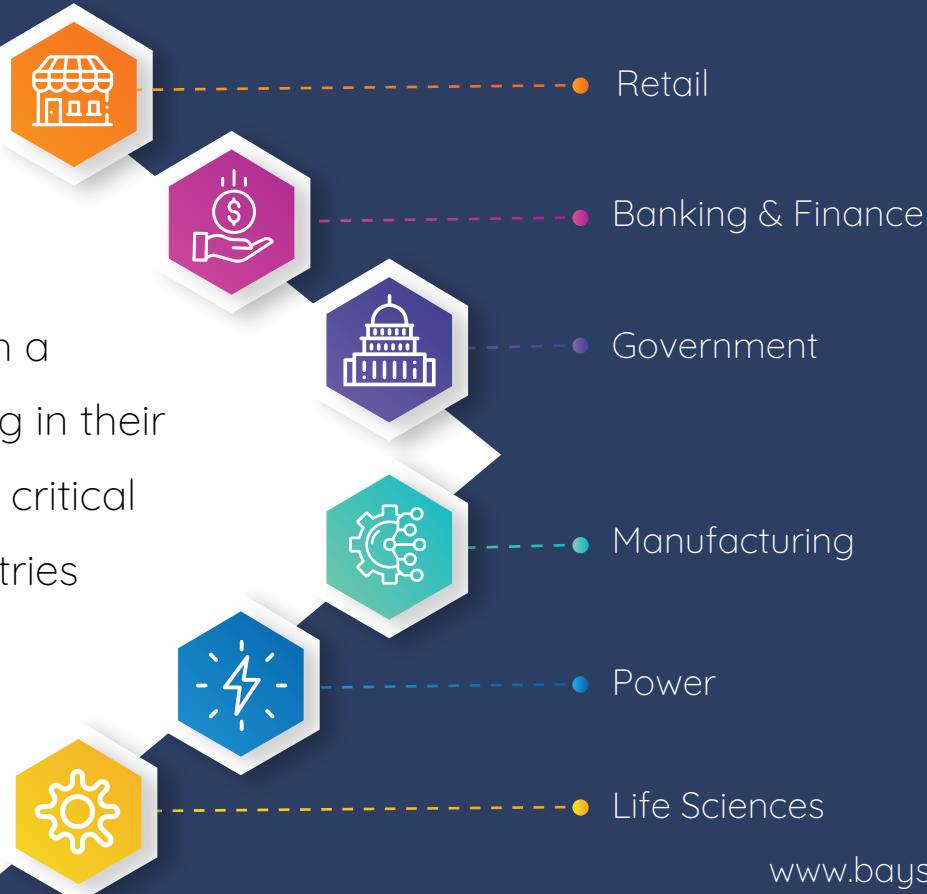


# TECHNOLOGY STACK



# INDUSTRY VERTICALS

Team Bayshore Intelligence Solutions comprises of senior professionals from different domains along with a team of proficient techies, bringing in their experience and expertise to solve critical problem statements across industries and verticals, using the power of Artificial Intelligence.



# Thank You



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