MAGIC SUBMISSION
AI-POWERED SUBMISSION INGESTION AND TRIAGE

intellectAI

Decoding Loss Runs

Challenges and Opportunities for Automation in the Insurance Industry

Introduction

In the insurance industry, understanding past losses is crucial for risk assessment, premium calculations, pricing, and policy renewal. The primary data required for this is the claims data, which is provided by Loss Runs, a document that details historical losses associated with an insured over a specific period.

The significance of loss runs extends beyond just the insurance company; they are equally important to brokers and policyholders. Brokers use these reports to negotiate better terms and premiums for their clients, while policyholders rely on them to understand their loss history and manage their insurance needs effectively. Given their pivotal role, the accuracy, clarity, and timely availability of loss runs are paramount for the efficient functioning of the insurance ecosystem.

Despite their importance, loss runs are notoriously difficult to process and interpret due to several inherent issues. These issues stem from the complexity and variable nature of loss run reports, the quality and consistency of the data they contain, and the limitations of existing technologies in handling such documents. This article explores specific challenges associated with interpreting and automating loss runs and discusses the potential benefits and solutions for automating loss run report processing.

Understanding and addressing these challenges is important for the insurance industry as it strives to enhance operational efficiency, improve risk assessment, speed up turnaround time for submission to quote, and provide better services to policyholders.

Understanding Loss Run Reports and Use Cases in Insurance

Loss Runs Reports

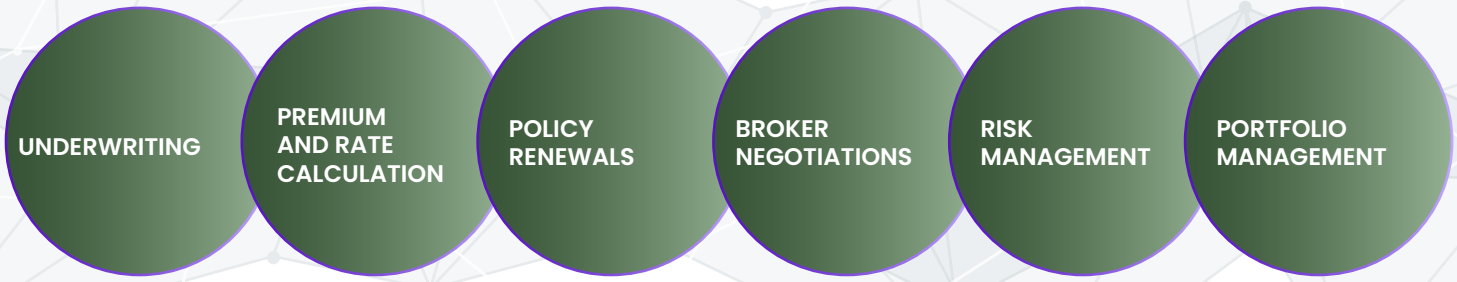
Loss Runs are comprehensive reports that provide detailed information about historical losses, i.e., claims history, associated with an insured party for a commercial or specialty insurance policy. Typically generated by insurance carriers or brokers, they provide a wealth of data which includes:

1. **Policy Details**
   Policy number, period line of business (LOB), etc.

2. **Claim Details**
   Claim number, type of loss, cause of loss, accident description, loss date, claim date, closure date, coverage type, claim status, etc.

3. **Severity of claims (Financial data)**
   Loss incurred, expenses incurred, reserve amount, outstanding amount, recoveries, total incurred, and total net loss.

Use Cases



Underwriting

Underwriters rely on loss runs to evaluate risks of potential insureds. By analyzing past claims, they can determine the likelihood of future claims and set appropriate premiums. Loss runs help in understanding losses at a detailed level, including:

- → Type of claims
- → Financial impact and costs of claims
- → The frequency and severity of prior claims
- → Location of the claims (to determine exposure footprint)

Premium and Rate Calculation

Actuaries and underwriters use loss run data to calculate premiums and rates. Historical loss data helps in understanding risk exposure and establishing rates that reflect the true cost of potential future claims.

Policy Renewals

Loss runs provide insurers with the necessary data to decide whether to renew a policy and under what terms. A history of frequent or severe claims may lead to higher premiums or non-renewal.

Broker Negotiations

Brokers use loss runs to negotiate better terms and premiums for their clients. They analyze the data to highlight favorable risk profiles and argue for lower rates or enhanced coverage.

Risk Management

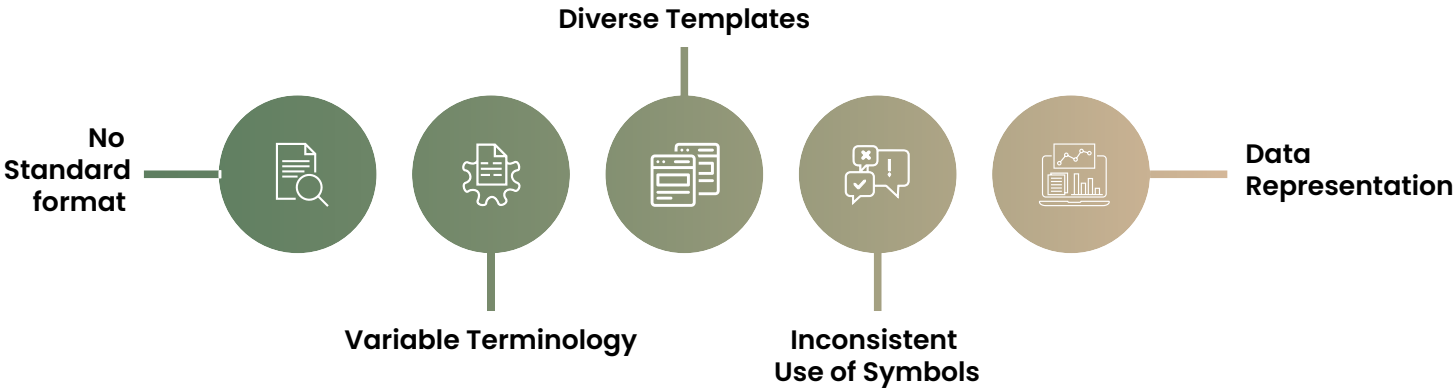
Policyholders can use loss runs to identify patterns in their claims history and implement measures to mitigate future risks. This proactive approach can lead to fewer claims and more favorable insurance terms.

Portfolio Management

Insurers use loss runs to manage their overall book of business. By analyzing aggregated data from multiple loss runs, they can identify trends, assess the performance of different segments of their portfolio, and make strategic decisions about risk exposure, pricing, and product offerings. Effective portfolio management helps insurers maintain profitability and competitiveness in the market.

Challenges in Reading Loss Runs

Navigating and interpreting loss runs presents numerous challenges for insurers, brokers, and policyholders. The inherent complexity of these documents, coupled with a lack of standardization and data quality issues, makes accurate and efficient processing difficult. Understanding these challenges is essential for developing effective solutions and improving the overall functionality of loss run management.



Complexity and Lack of Standardization

No Standard format

Due to the diversity in lines of business, coverage, and claim processing, loss runs vary significantly between insurers.

Diverse templates

Loss runs can appear in various templates such as key-value pairs, simple tables, or multi-header tables, complicating interpretation.

Data Representation

There are inconsistencies in how data is presented, such as accident locations being recorded with varying levels of detail.

Variable Terminology

Terms used by insurance companies can differ, leading to confusion. For example "Total Losses" might be listed as “Total Incurred Losses” or “Total Claims” on another carrier’s loss run.

Inconsistent Use of Symbols

Money that the insurance carriers are able to recover through subrogation, known as recoveries might be indicated with different symbols (negative sign, parentheses), adding to the complexity.

Interpretation Challenges

Interpreting loss runs can be challenging due to the lack of standardization. The same information can be interpreted differently, making it difficult to define automation rules. Loss runs often need to be read contextually, requiring a special skill set, and an understanding of the entire document and its nuances.

Data Quality Issues

Loss runs frequently suffer from data quality issues:

Inconsistent Representation of No Losses

Different carriers represent "No Known or Reported Losses" (NKORL) in various ways, such as text statements, separate letters, or in Loss Runs templates with all information as empty.

Crude Methods of Generation

Many loss runs are created using basic methods like copy-pasting from claim systems, leading to formatting and data quality issues.

Manual Data Entry

Manually processing and analyzing large volumes of loss run data is time-consuming and prone to human error.

Integration with Systems

Once data is extracted from loss runs, integrating it into existing insurance systems poses another challenge. This integration is crucial for seamless operations but comes with its own set of hurdles:

System Compatibility

Different systems may have compatibility issues, making it difficult to integrate loss run data without extensive entity normalization.

Data Mapping

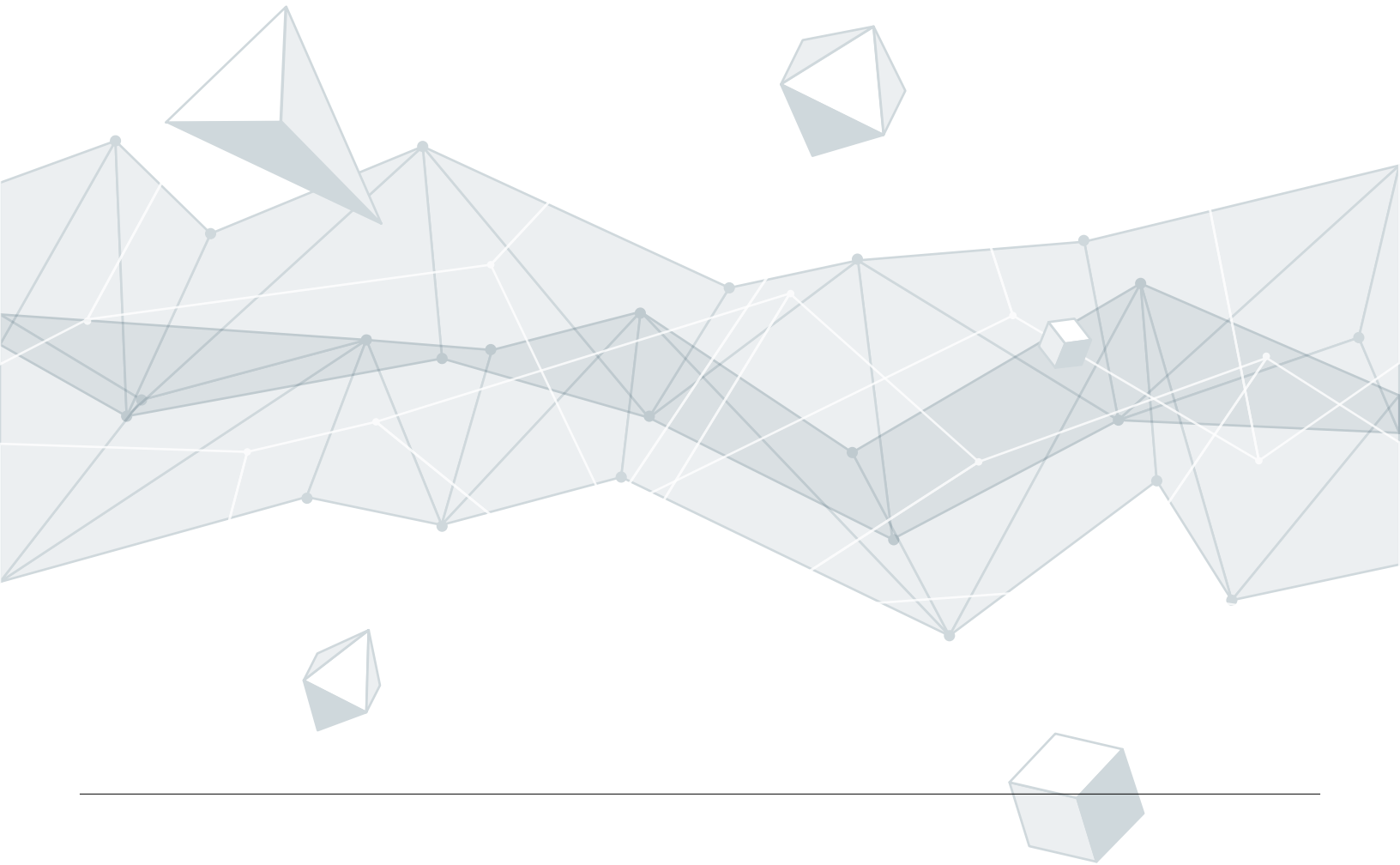
Ensuring that data fields from loss runs are correctly mapped to corresponding fields in the target system is essential to maintain data integrity.

Workflow Disruption

Integrating new data sources can disrupt existing workflows and require retraining of staff.

Lower Incentives for Standardization

Insurance carriers may currently see little direct benefit in standardizing loss run reports, especially for insured parties who might switch providers. This further complicates the creation of consistent, standard and accurate loss run documents across the commercial and specialty insurance industry.



Current Practices and Limitations

Manual and Semi-Automated Processes

Traditional methods of processing loss runs include manual data entry and semi-automated processes using Optical Character Recognition (OCR) and rule-based systems. However, these methods have significant limitations:

Time Consuming

Manual entry of large loss run documents can take days or weeks.

Error Prone

Manual processes are susceptible to errors, such as typos that can drastically alter claim amounts.

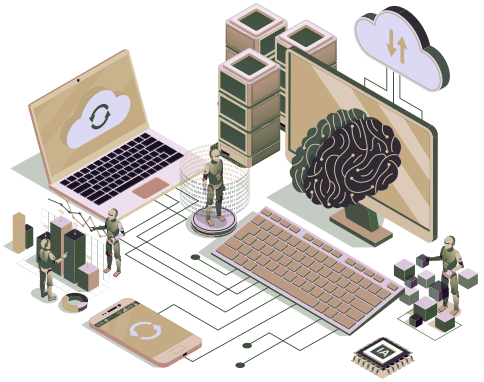
Inflexible

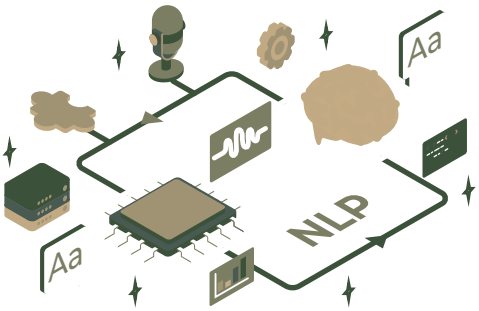
Standard Operating Procedures (SOPs) may not cover all scenarios, particularly non-standard ones.

Technological Solutions & Innovations

Machine Learning and AI

Machine learning algorithms can be trained to recognize patterns and anomalies in loss run data, automate the identification of key data points, and enhance the accuracy of data extraction and analysis.



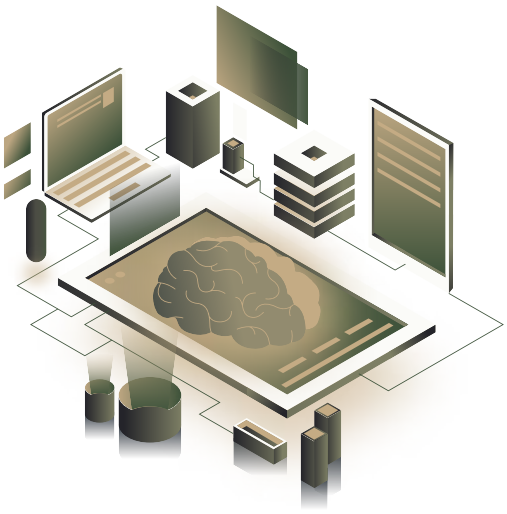


Natural Language Processing

NLP techniques can interpret unstructured text in loss run reports, such as notes and descriptions. It can help extract meaningful information, standardize terminology, and improve the consistency of data interpretation.

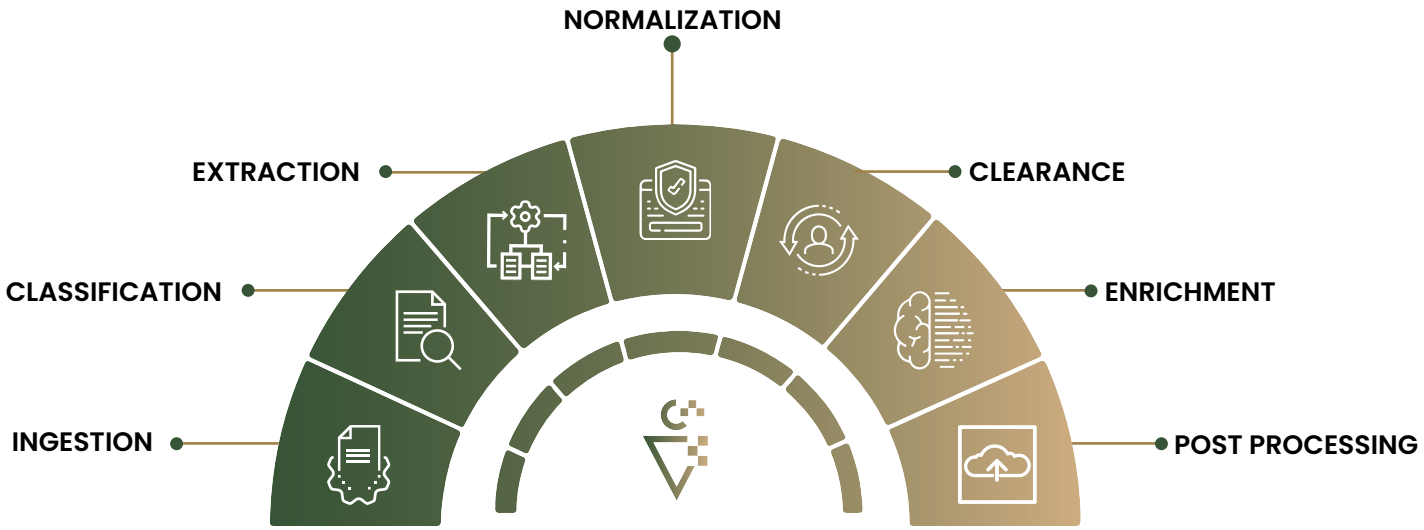
Artificial Intelligence (AI)-Driven Insights

AI tools provide predictive insights and advanced analytics based on historical loss run data. These insights can aid in decision-making for underwriting, pricing, and risk management.



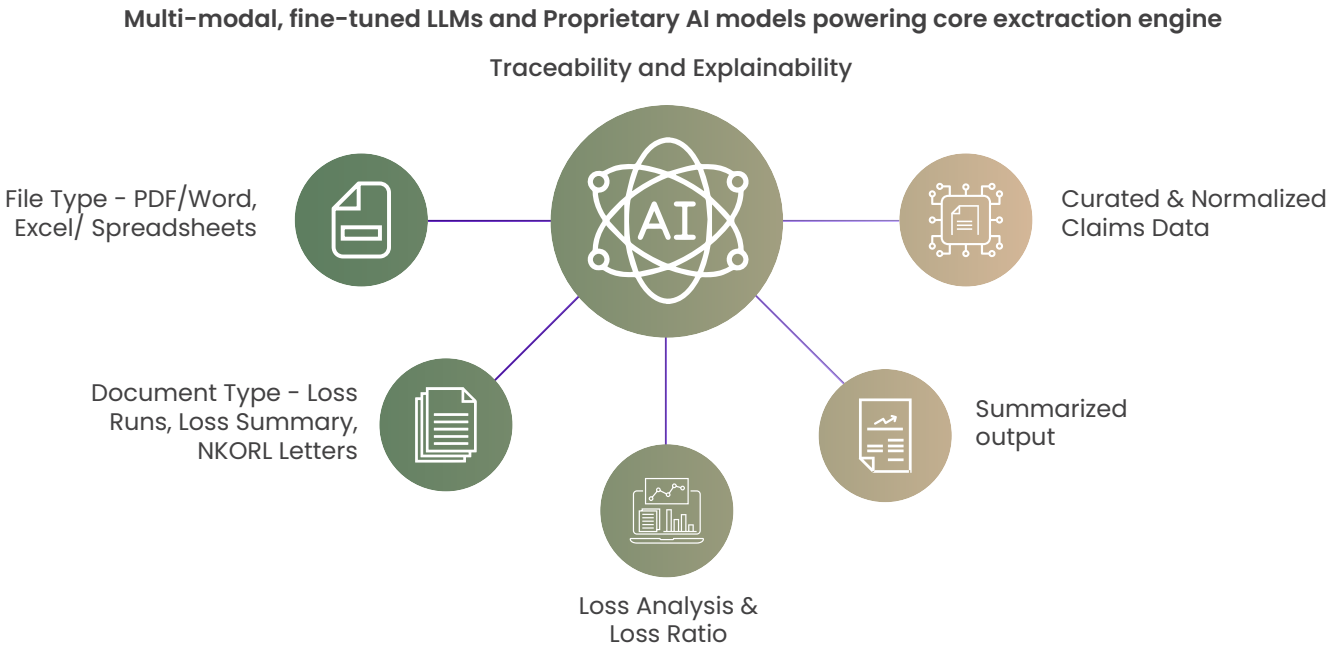
Magic Submission : A Hyper Automation AI Platform for document extraction

eMACH.ai Magic Submission is a purpose-built, hyper-automation product designed to automate the end-to-end ingestion and routing of submissions, composed on the eMACH.ai platform. Magic Submission is a microservice and API driven, cloud native headless solution with AI at its heart.



Loss Runs

eMACH.ai Magic Submission has introduced groundbreaking advancements in Loss Runs processing, effectively addressing the challenges of claims extraction. The platform seamlessly balances accuracy and speed, ensuring both can be achieved simultaneously. Capable of handling loss run reports from over 6,000 insurance carriers, each with its unique template, Magic Submission utilizes proprietary ML algorithms, Large Language Models (LLMs) to ingest any loss run template, regardless of its shape or format. The system can extract more than 180+ normalized entities in their raw format, tailored to be either line of business (LoB) agnostic or LoB specific based on customer requirements. This robust capability is further enhanced by comprehensive loss analysis, providing an end-to-end overview of the losses incurred by the insured.



Benefits of Automating Loss Run Reports Processing with Magic Submission

Automating the ingestion and processing of loss runs through Magic Submission can offer several benefits:

Improved Data Accuracy

Improved system accuracy of 95%+ with low touch and reduced errors associated with manual data entry.

Data Standardization

Ensures consistent formatting and terminology across loss runs as required, which could be LOB agnostic or LOB specific, depending on the client's needs.

Contextual Interpretation

Automation can interpret data contextually, like a human, producing more accurate data than even human interpretation.

Pattern Identification

Can help to uncover hidden relationships and trends within the intricate and layered historical data of loss runs, providing deeper insights for better decision-making.

Faster Turnaround

Speeds up the processing of loss runs, leading to quicker quote generation.

Handling Variations

The loss run tool can manage the various formats and representations used in loss runs by 6000+ carriers and brokers.

Security and Safety

Offers industrial-grade security and data privacy ensuring client data is not used by LLM for training purposes.

Limited or No Need for Retraining

Magic Submission adapts to different loss run formats without requiring constant updates to the models

Raw Extraction

Magic Submission offers raw extraction from given loss run reports.

Capability to Read Handwritten Information

Advanced automation tools can interpret handwritten notes.

Volume

No restrictions on the volume of data.

Conclusion

The complexity and variability of loss runs present significant challenges for manual processing. However, Magic Submission's Loss Run capability offers solutions to standardize data, improve accuracy, and speed up processing times. By leveraging advanced technologies, the insurance industry can overcome these challenges and realize substantial benefits in efficiency and accuracy in the ingestion process thereby enhancing risk selection and improving the overall book of business.

Author Details

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Bio: Sagar Gawali is an accomplished AI Product Manager with a robust background in Property & Casualty insurance, spanning over 13 years. His career highlights include leading innovative AI-driven product, strategizing and managing complex products, and delivering impactful solutions in the insurance industry. With a strong academic foundation with double masters from IIM, Mumbai in Management and IIIT, Bangalore in Data Science and numerous professional certifications, he is recognized for his expertise in AI, data science, analytics, and product management. Known for his strategic vision, technical proficiency, and contributions to industry knowledge through publications.

About Intellect Design Arena Limited

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With three decades of domain expertise, Intellect offers a full spectrum of banking and insurance technology products through four lines of business: Global Consumer Banking (iGCB), Global Transaction Banking (iGTB), IntellectAI and Digital Technology for Commerce (iDTC). Intellect is a pioneer in applying Design Thinking and our 8012 FinTech Design Center, the world's first Design Center dedicated to Design Thinking Principles, underscores our commitment to continuous and impactful innovation, addressing the

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Their AI cloud-native products are known to address the most complex business objectives with the highest accuracy of outcome. Skilled technical experts and data scientists seamlessly augment customer teams to accelerate their transformation journey, easily adapting as business models and technology evolve. www.intellectai.com