

A 3D rendering of a classical building with a portico supported by several columns. The building is set against a background of a digital network with glowing lines and squares. The building is illuminated from below, creating a strong glow and reflection on the surface it sits on.

Transforming Customer Engagement in BFSI through Generative AI Models

A Whitepaper



Executive summary

Why isn't your banking experience as seamless as ordering a coffee or hailing a ride in today's digital age? At the heart of the BFSI sector lies an intricate web of customer interactions, transactions, and decision-making processes. While each decade heralds technological advancements that streamline financial operations, their direct impact on enhancing customer engagement has often been marginal. The advent of AI-driven solutions ushered in a new era of digital banking, transforming many traditional processes. However, these initial AI implementations did not holistically address all dimensions of the customer experience, leaving certain areas unnoticed. This gap underscores the imperative for the BFSI sector to continually refine its digital strategies, ensuring that customers can fully harness the benefits of modern banking innovations.

How is the BFSI sector leveraging the cutting-edge capabilities of Generative AI to redefine customer experiences? Generative AI, a sophisticated subset of artificial intelligence, is making significant inroads into the fintech domain, offering customers unparalleled personalized banking experiences. Replicating data and producing various outputs—from images and codes. Central to this transformation are models such as Generative Adversarial Networks (GANs), Reinforcement Learning, Variational Autoencoders (VAEs), and Transformer-based architectures.

These models are instrumental in enhancing data augmentation, fraud detection, portfolio management, risk assessment, and loan underwriting. The adaptability and depth of Generative AI have positioned it as an invaluable asset in the BFSI sector, driving innovation and efficiency across various functions with its nuanced algorithms and functionalities.

This whitepaper underscores the pivotal significance of Generative AI in contrast to conventional AI, particularly in its capacity to reshape customer experiences within the BFSI sector. As you delve deeper, you'll be equipped with a comprehensive insight into the nuances of various Generative AI models and best practices for seamless integration within the financial ecosystem. Coupled with a forward-looking perspective on emerging trends, this document serves as a guide to harnessing next-generation innovations that promise to elevate the BFSI sector to new heights of customer-centric excellence.



Table of Contents

- » Introduction
- » Generative AI vs. Traditional AI: A comprehensive analysis
- » Strategies for seamless Generative AI rollout in the BFSI sector
- » Advancing financial services: The role of Generative AI models in customer engagement
- » Case-study: Bud.ai pioneers hyper-personalized banking experience
- » Forecasting customer-centric innovations in the financial landscape
- » Indium Software: Balancing innovations and service in the banking consortium
- » Conclusion

Introduction

To a certain degree, customer engagement is truly convincing with traditional approaches in the financial sector, but what if the below stance proves to be way older and non-beneficial for the customer and the organization?

Every banking institution has initiated a pre-defined chatbot to assist customers that addresses standard user requests, queries, and other clarifications. However, if a user struggles with complex queries, the chatbot will fail to recognize the request, leading to customer frustration and poor interaction. This shortfall in user experience is evident, as global banking statistics reveal that **one in every five customers (20%)** disengages due to subpar interactions.

In the above illustration, if envisioned through Generative AI, the chatbot could have driven insights from previous interactions, providing accurate responses, tailoring personalized recommendations, and suggesting opportunities that the customers could benefit from. Thus, the application of Generative AI transcends traditional AI through its ability to read extensive datasets and generate responses based on queries. It possesses the potential to analyze large amounts of existing data, allowing it to identify patterns and trends and make the most beneficial, informed decisions for the BFSI sector.





Generative AI vs. Traditional AI: A Comprehensive Analysis

With Generative AI gaining impetus worldwide, its growth in the banking ecosystem has been estimated at **USD 9,475.2 million by 2032**, paving the way for its significance in every aspect of the BFSI sector. Through the disruptive potential of Generative AI, the massive volume of data generated has been transformed into various use-cases that help build a user-friendly approach for customers whose relationship with the financial institution is unavoidable. Enhancing loan servicing decisions, underwriting procedures for loans and credit risks, and personalizing marketing campaigns by reading and analyzing the data sets, pre-defined patterns, and parameters helps bring about the most expected change for customers and organizations.

Data generation & augmentation

Traditional AI:

Training data dependency - The model's accuracy hinges on the quality and volume of its training data. Biased or poor-quality data can distort outcomes, while ample, high-quality data ensures reliable results.

Overfitting risks - The deterministic nature of traditional AI models makes it hard to generalize new, unseen data compared to their performance in training data.

Static data augmentation - Traditional methods might employ techniques like bootstrapping or SMOTE for data augmentation, but these methods don't generate entirely new data points; they merely replicate or interpolate existing ones, limiting the model's ability to generalize well to new, unseen scenarios.



Generative AI:

Bias mitigation through synthetic data generation - The ability to produce entirely synthetic data samples that resemble real data, mitigating the risks of using genuine datasets highly influenced by biases or prejudice issues from past events.

Continuous learning - Generative models are highly adaptable by nature and evolve with the continuous influx of data, ensuring that the models remain updated with the latest trends and patterns in the financial world.

Dynamic augmentation - Generative AI can create diverse data scenarios on the fly, enhancing the model's robustness and generalization capabilities.

Fraud detection

Traditional AI:

Rule-based systems - Trained to detect anomaly patterns based on pre-defined rules and historical fraud patterns, the potential to discern new security breaches or fraudulent events is non-achievable by traditional AI models.

High false-positives - Based on static rules, numerous false alerts are notified to customers, utilizing resources in investigating legitimate transactions, leading to wastage and trust breakage.

Lack of adaptability - Real-time integration and analysis are not detrimental, as the traditional AI models fall short in adapting to modern tools and techniques, failing to cope with fraudsters' latest strategies and tactics.



Generative AI:

Anomaly detection - Implementing GAN, a significant Gen AI model, is highly potent in ascertaining normal or original data. Anything that deviates significantly from this norm can be flagged as potential fraud.

Proactive approach - The preparedness to monitor, analyze, and adapt to new emerging technologies has led to more nuanced pattern identification and threats. Consequently, reducing false positives and focusing resources on genuine threats.

Automated feature learning - Automatic creation of new features just by analyzing raw data enables the Generative AI models to uncover new and different fraud indicators that weren't previously considered.

Financial forecasting

Traditional AI:

Statistical models - The limitations on forecasting the intricacies of volatile financial markets or adapting to sudden, unpredictable market shifts are due to the dependence on statistical models like ARIMA and Exponential smoothing. The linear nature and stationarity assumptions lead to oversimplified representations, resulting in inaccurate and unreliable financial predictions, which are crucial for decision-making in the financial sector.



Generative AI:

Deep learning models - Designed to capture and remember long-term sequential dependencies, the Long-Short Term Memory (LSTM) and Gated Recurrent Units (GRU) help forecast and understand intricate patterns in financial time series. Their non-linear processing adeptly handles the complexities of financial data, adjusting to new information and filtering out noise. These models can automatically extract relevant features and integrate external data sources, offering a comprehensive and accurate perspective on financial trends in a dynamic market

Document automation

Traditional AI:

Pattern recognition - Rule-based algorithms assist in recognizing and categorizing financial documents or statements. This approach is solely based on preset rules and templates that don't support new or modern placements of financial statements.

Generative AI:

Contextual understanding - To deeply understand the financial statement context and adapt to new structures and formats, Generative AI models such as transformer architecture and variational autoencoders are employed. Instead of just flagging discrepancies, Generative AI can actively suggest or even generate corrections. They can synthesize entire document sections based on patterns learned from vast datasets and accelerate document generation.



Scalability & adaptability

Traditional AI:

Fixed frameworks - As financial environments evolve with new products, regulations, and market conditions, manual intervention and the inability to adapt to new information or trends swiftly restrict the traditional AI model within its fixed frameworks, leading to delays and increased operational time. With the emergence of new data sources in finance, from social media sentiments to real-time market feeds, traditional models might struggle to incorporate these without significant overhauls.

Generative AI:

Versatility - The adaptability and multi-functionality of Generative AI models don't require any manual intervention when faced with new data. Dynamic learning refines their understanding and predictions as they encounter varied data, ensuring they remain effective even in rapidly changing financial environments. From generating synthetic financial data for robust testing of new products to creating realistic financial scenarios for risk assessment, Generative AI models can cater to diverse challenges, ensuring better preparation for the uncertainties of the financial world.



Depth of analysis

Traditional AI

Surface analysis - Those not based on deep-learning mechanisms fail to recognize and respond to immediate and obvious correlations. An intricate analysis of the relationships between data, the nuanced interplay between various economic indicators, global events, and a stock's performance is crucial in the financial ecosystem. Any shortfall in this approach leads to suboptimal decisions or predictions.

Generative AI

Deep analysis - Designed to delve deeper into the intricacies of each piece of data, the Generative AI models consist of multiple layers of interconnected nodes (neurons) that process and hierarchically transform the data. From assimilating information from wide sources to capturing more accurate predictions, even in situations that are novel or haven't been explicitly trained on Generative AI's deep analytics capability, it effectively handles complex scenarios, offering insights that models that only skim the surface might miss.



Strategies for seamless Generative AI Rollout in the BFSI Sector

Clear objective:

Defining the purpose and direction of Generative AI assists organizations with a clear vision of its alignment with business, resource optimization, and measurable outcomes. Through engagement with stakeholders, business professionals outline the needs and expectations of the Generative AI model.

Access its ability to evaluate, analyze, and compute the data with a specific, measurable, achievable, relevant, and time-bound (SMART) criteria approach. Ensure iteration of the model per different objectives and check if the project remains aligned with evolving business goals and market conditions.

Prioritize data privacy:

Safeguarding users' data as a resemblance of trust, ethical responsibility, and business continuity acts as the supreme concern for the banking and financial industry. As stewards of sensitive information, data leaks or breaches result in severe penalties, legal repercussions, and reputational damage.

Adding an extra layer of security through encryption, tokenization, or pseudonymization can be employed for data at rest or in transit, making it statistically improbable to identify individual data points during Generative AI training and modeling. Regular audits and staying updated with data privacy regulations assist financial institutions in preventing data loss and protecting private information while harnessing the benefits of Generative AI.



Transparent models:

To prevent biased decisions and rectify errors, the need to understand the process and explain it to regulatory bodies is highly commendable. A predictable model that can be read and analyzed for its decisions, such as data point considerations and data processing approaches, can provide a clearer picture of the Generative AI's techniques for internal and external (user) personnel. Also, by leveraging the visualization tools, you can graphically represent the model processes and decision-making, elevating the application of Generative AI for the banking ecosystem.

Pilot project:

Addressing concerns and issues before Generative AI implementation helps organizations with feedback, confidence in preferences, and potential areas for improvement. Rectifying them beforehand helps with minimal to no expenses, thereby ensuring a smooth integration. A pilot phase can be the solution, where a group of people dedicated to the project help with feedback, analysis, and performance monitoring. Detailed documentation of the pilot phase facilitates its significance and transparency as a guide for companies and users. Post-pilot results aid in setting the stage for implementation with optimized performance, security trust, and confidence.

Technology & talent:

The shifting market landscape fueled by data, the drive for improved computational power, and personalized preferences take center stage. Fintech, marked by evolving threats and innovations, demands a focus on infrastructure and talent to ensure efficient performance and cost-effective optimization.

Simultaneously, Generative AI continually introduces novel solutions, requiring adept providers for hardware upgrades like GPUs, TPUs, and cloud solutions. Fostering a culture of friendly AI practices and recruiting talent proficient in Generative AI within the BFSI sector provides a competitive edge and aligns with industry trends, bolstering customer satisfaction.



Advancing financial services: The role of Generative AI Models in Customer Engagement

Generative Adversarial Networks (GAN):

In the intricate landscape of the BFSI sector, Generative AI, underscored by GANs, stands out by its bifurcated architecture: the generator and the discriminator. The generator undergoes adversarial training, refining its capability to produce data mirroring reality. In contrast, the discriminator sharpens its accuracy in discerning between genuine and artificially produced data. But what profit does a financial model make from the generator and discriminator?

It's capacity to produce synthetic data samples enables financial institutions to leverage this data as a substitute for genuine samples in AI modeling and training. Additionally, the discriminator's capability is harnessed to detect authentic fraudulent activities, providing users with pertinent alerts and recommendations.

Let's delve into the below case-study where GAN's application is experimented with its two components and executed successfully.

Imbalanced data issues in credit card fraud detection:

To address the imbalance in the data sets, legitimate transactions outnumber fraudulent activities, frustrating users with unnecessary alerts and recommendations.

GAN's significance in presenting forged data sets through the generator component helped train the AI model for risk regulation and to adhere to regulatory requirements. This helped organizations rebalance the datasets and reduce model overfitting, making the fraud detection process more efficient and robust. Also, with synthetic data production, customers can trust the organization to maintain the confidentiality of their sensitive data.



Recurrent Neural Networks (RNNs):

Generative AI's potential to recognize time series or sequential data and capitalize on them for future unprecedented events is achieved through one of its models, recurrent neural networks. It processes the current data and considers the previous data stored in its hidden layer, aka memory, to predict any unrecognized event or activity that might occur or hinder the organization's performance.

Long short-term memory (LSTM) Networks: The updated version of RNN comes with LSTM, which is useful for tasks like language modeling, machine translation, and speech recognition as it can capture long-term dependencies and is less prone to vanishing gradient problems. Three gates govern its operations: the initial gate, which determines the amount of information to be memorized or stored; the forget gate, which controls how much of the current memory must be saved and deleted; and the output gate, which assesses the contents of the memory cell and the current input to determine what the next hidden state should be. This approach assists the financial sector in analyzing and categorizing large volumes of textual financial documents to predict stock prices, currency exchange rates, and other financial time series data.

Forecasting closing stock values for the LQ45 index

The Indonesian stock market index, LQ45, which has high liquidity and a significant market share, was focused on predicting stock closing values.

The study specifically considered stocks like BBCA, BBNI, BBRI, BBTN, BMRI, and BTPS, where researchers preferred a simple three-layer LSTM network instead of a deep learning model. The prediction was close to accurate, with two stocks, BBCA and BMRI, achieving the lowest MAPE (Mean Absolute Percentage Error) values, indicating good forecasting results. Hence, proving the application of LSTM in the stock market exchange profitable, particularly for the above two stocks, emphasizes the importance of the right stock selection to arrive at accurate results and recommendations for investors and traders.



Transformer-based models:

Generative AI, leveraging the transformer-based model, excels with its "self-attention mechanism," which assigns importance to different parts of an input sequence. While transformers inherently lack sequence awareness, this is addressed with positional encoding.

Their multi-head attention allows for diverse data focus, achieved through stacked encoder and decoder layers. This architecture's sophistication greatly benefits the BFSI sector through chatbots offering real-time user assistance. Additionally, the model's attention to data nuances aids in document analysis, personalized marketing, product recommendations, and targeted campaigns.

To emphasize the transformer-based architecture's GPT-3 and GPT-4 by OpenAI, let's discuss its momentum in the BFSI sector for customer engagement and transformation.

OpenAI's model as virtual financial assistants

As the banking consortium endeavors to lead in technological innovation, there's a compelling opportunity to harness the capabilities of GPT-3 and GPT-4. By integrating these advanced models into their digital interfaces, banks can offer an enhanced level of customer interaction, functioning as sophisticated chatbots or virtual financial consultants.

Rooted in transformer-based architecture and renowned for their attention mechanisms, GPT-3 and GPT-4 can deliver insightful, tailored advice, drawing from a user's financial profile, transaction history, and prevailing market conditions. Such precision in counsel fosters deeper trust and amplifies customer engagement, setting a new benchmark in digital banking



Reinforcement learning model:

Reinforcement Learning (RL) has emerged as a pivotal mechanism in the BFSI sector, characterized by its foundational components: the agent's decision-making process and the feedback from the environment. In this setup, the agent operates as a strategic decision-maker, interacting with the environment to make informed choices that optimize long-term outcomes.

The environment, in turn, provides essential feedback through rewards or penalties, directing the agent's continuous learning. How does this dynamic interaction between the agent's choices and the environment's feedback influence the BFSI sector?

The inherent adaptability of the agent offers a robust tool for dynamic financial decision-making. As it interacts with diverse environments - fluctuating financial markets, evolving customer preferences, or intricate transaction datasets - the agent hones its strategies to optimize financial outcomes.

This could range from amplifying investment gains to curtailing the risks associated with credit defaults. Moreover, the real-time feedback from the environment ensures that BFSI models remain responsive, adapting to emerging data or market shifts and consistently delivering insightful and strategic recommendations.

Draw attention to the below-mentioned case-study for the banking institution on portfolio optimization executed by a leading IT firm.

Portfolio optimization

With asset allocation primarily focused on portfolio management, the traditional methodologies failed to rebalance the asset allocation based on real-time data and dynamic market conditions.



With the assistance of Virtusa, a premier IT giant, the company adopted a deep reinforcement learning solution for the challenge and delivered a responsive solution that outperformed human managers' performance and efficiency. By designing their AI portfolio manager to complement the asset managers in building, monitoring, and automatically rebalancing the asset allocation in the portfolio.

By transitioning from traditional methods to advanced RL-driven solutions, a more adaptive and responsive portfolio management solution that can be better aligned with clients' goals and market conditions was delivered.

Variational Autoencoders: Generative AI, utilizing the VAE model, stands out with its probabilistic approach to encoding and decoding data. While VAEs inherently focus on the latent space representation, they ensure these representations are continuous, making them ideal for generating new, similar data. Their encoder captures an approximation of the data distribution, and the decoder samples points from this distribution to produce new data.

The elegance of this architecture is particularly advantageous for the BFSI sector in anomaly detection, identifying unusual patterns that might indicate fraud. Moreover, the model's ability to generate data similar to, but not the same as, the input data can be instrumental in simulations, risk assessments, and creating synthetic financial datasets for testing and modeling.





Case-study: Bud.ai Pioneers Hyper-Personalized Banking Experiences

Overview:

In view of addressing the intricacies of banking professionals, risk appetizers, customers, and other financial personnel, the company wanted to launch a Generative AI platform that offered financial insights into their workflows, enhancing engagement through meaningful hyper-personalization and matching consumers with the right financial products.

Key features:

Introduced Jas, a product built on Bud.ai's core, that offers a personalized generative chat interface. This AI assistant aids in various financial aspects, from suggesting suitable credit products to providing financial planning advice.

Real-time insights: The platform's advanced logic core generates real-time financial insights for consumer and corporate users.

Large Language Model (LLM) integration: The integration with banking organizations assists in deriving clear and actionable insights from unstructured data scattered across diverse channels.

Jas AI Assistant: The product, built on Bud.ai's core, offers a personalized Generative chat interface that aids in various financial aspects, from suggesting suitable credit products to providing financial planning advice.



Results obtained:

20%

increase in overall platform engagement for product delivery.

80%

surge in operational efficiency during the new loan application process.

20%

decrease in missed loan payments.

Future development

To accelerate JAS as an action-bot that enhances customer engagement by offering customized recommendations and executing tasks on behalf of users.

Forecasting Customer-Centric Innovations in the Financial Landscape

The implications of Generative AI have just stepped in through its various models and architectures in the BFSI sector. As every technology progresses, its demand and significance will increase with years down the line. Leveraging the best version is instrumental in incorporating them early to derive its outcome through multiple iterations and practice. Generative AI models initiated their progress in the BFSI sector, and they are awaiting future trends that will enhance their operations, customer engagement, and experience.

Emotionally intelligent financial assistant:

A future trained Generative AI will gauge human emotions and behavioral data to provide financial advice for customers to elevate their banking experience with maximum returns and minimum loss.

Financial scenarios for training:

A prospective forecast using complex, AI-generated financial scenarios can be mimicked for professionals to gain an understanding and knowledge that will prepare them for revolutionary events.

AI-driven financial product design:

A study of millions of customer interactions, transactions, and behavioral data provides the Generative AI with inputs that help design future financial products that optimize the usage and convenience of customers.

Ethical financial advice:

A more concerned society will be established in time, where the Generative AI prompts compliance and regulatory requirements if banking sectors opt for solutions that don't align with sustainable and socially responsible goals.

Neural mergers of humans for financial decisions:

An exciting and exhilarating collaboration between human neural systems and AI that utilizes human intuition and AI-driven insights for instant financial decisions, favoring users with real-time updates.

Quantum computing in the fintech landscape:

A deeper understanding of quantum computation integrated with the power of Generative AI creates ultra-complex financial models that empower global economic scenarios ranging from geopolitical events to climate change impacts, providing real-time insights into potential future market conditions.





Indium Software: Balancing Innovation and Service in the Banking Consortium

As a leading partner across various industries and solutions, Indium Software has consistently prioritized advancements in the BFSI sector. The company diligently works to harmonize technological innovation with superior service quality. Recognizing the transformative potential of Generative AI for banking, Indium Software has mobilized its team of over 100 data scientists and 150 data analytics experts. Through continuous engagement with clients, the firm harnesses the full spectrum of Generative AI capabilities, aiming to construct a robust, scalable, and adaptable financial ecosystem.

Indium Software offers the following services for the BFSI sector to design solutions that raise the bar for innovation, efficiency, and customization.

GenAI strategy consulting

Partner with Indium Software for GenAI strategy, where, as per the banking ecosystem's use-cases, modeling accessibility, and computing needs, the professionals will guide you in deploying the respective Generative AI model and monitoring its performance through LLMOPs.

GenAI model pre-training

Exposing the model to a massive amount of diverse data during the Generative AI model pre-training helps the BFSI sector fine-tune the model for specific domains or data. Experts at Indium Software have carefully streamlined this approach to help the model understand various contexts and further refine it for specialized applications.

Model fine-tuning

Refining the pre-trained model just for a specific task or domain significantly empowers every department of the banking sector. With its exposure to vast data, fine-tuning now shortens the broader knowledge of a particular dataset, benefiting from the generalization of the pre-training phase and the specialization of the fine-tuning phase.



Prompt engineering

Selecting specific input prompts for language output models such as GPT-3 and GPT-4 is essential for an optimized interaction. The team carefully considers input prompts, and the users are assisted with accurate, relevant, and quality outputs that align with their intent or the specific task requirements.

A/B testing

The company works on two versions of the Generative AI model with two groups of people to determine the best performance for the fintech industry. By analyzing performance metrics such as customer engagement, fraud detection analysis, portfolio management, and many others from both versions, businesses can identify which is more effective and make data-driven decisions to optimize their content or strategy.

Cost-optimization

Adjusting the process, strategies, or operations without compromising on the quality or efficiency of the output is one of the premium services of Indium Software, where they bring in optimization for the model on the lowest budget possible. This approach can involve various tactics, from streamlining operations and leveraging technology to renegotiating contracts or reallocating resources. The ultimate goal is to enhance profitability and ensure sustainable financial health.





Conclusion

As we stand on the cusp of a new era in financial services, the fusion of Generative AI with traditional banking paradigms challenges us to reimagine the boundaries of possibility. The transformative potential of Generative AI is not merely a futuristic vision but a present-day reality for the banking sector to enhance customer engagement and experience. Indium Software's pioneering efforts underscore the symbiotic relationship between technological prowess and domain expertise, offering a blueprint for BFSI stakeholders to navigate the complexities of the digital age.

The sector's unwavering dedication to harnessing the full spectrum of Generative AI's benefits across its diverse facets is a testament to its imminent impact. From safeguarding against security breaches to streamlining loan processes to deploying intelligent virtual assistants, the applications are vast, promising unprecedented value for consumers and professionals. As this whitepaper elucidates, the journey of Generative AI in the BFSI sector is just beginning, and its full potential remains to be unlocked. As we move forward, the question is not whether we will adapt to this transformative force but how swiftly and strategically we embrace its myriad opportunities.



References

1. <https://venturebeat.com/ai/bud-financial-launches-bud-ai-generative-ai-platform-hyper-personalized-banking/>
2. <https://www.leewayhertz.com/generative-ai-in-finance-and-banking/>
3. <https://research.aimultiple.com/generative-ai-in-banking/>
4. <https://www.forbes.com/sites/forbestechcouncil/2023/07/07/the-benefits-of-customer-experience-ai-for-financial-institutions/?sh=30aa8c6810a8>
5. <https://technode.global/2023/08/17/putting-the-customer-first-the-impact-of-generative-ai-and-cx-in-the-bfsi-sector/>
6. <https://www.marketingtechnews.net/news/2023/jun/13/banks-admit-to-losing-20-of-their-customers-due-to-poor-customer-experience/>
7. <https://www.indusnet.co.in/transforming-banking-experiences-with-generative-ai/>
8. <https://www.uptech.team/blog/generative-ai-in-banking#:~:text=Generative%20AI%2C%20an%20advanced%20machine,harnessing%20financial%20data%20at%20scale.>
9. <https://journalofbigdata.springeropen.com/articles/10.1186/s40537-021-00495-x>
10. <https://www.upgrad.com/blog/evolution-of-generative-ai/>



About Indium

Indium is an AI-driven digital engineering company that helps enterprises build, scale, and innovate with cutting-edge technology. We specialize in custom solutions, ensuring every engagement is tailored to business needs with a relentless customer-first approach. Our expertise spans Generative AI, Product Engineering, Intelligent Automation, Data & AI, Quality Engineering, and Gaming, delivering high-impact solutions that drive real business impact.

With 5,000+ associates globally, we partner with Fortune 500, Global 2000, and leading technology firms across Financial Services, Healthcare, Manufacturing, Retail, and Technology—driving impact in North America, India, the UK, Singapore, Australia, and Japan to keep businesses ahead in an AI-first world.

USA

Cupertino | Princeton
Toll-free: +1-888-207-5969

INDIA

Chennai | Bengaluru | Mumbai
Hyderabad | Pune
Toll-free: 1800-123-1191

UK

London
Ph: +44 1420 300014

SINGAPORE

Singapore
Ph: +65 6812 7888

www.indium.tech



For Sales Inquiries
sales@indium.tech



For General Inquiries
info@indium.tech

